



California Regional Water Quality Control Board

Los Angeles Region



Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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Arnold Schwarzenegger
Governor

March 27, 2006

Mr. James F. Stahl
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
P.O. Box 4998
Whittier, CA 90607-4998

Dear Mr. Stahl:

RESPONSE TO COMMENTS ON TENTATIVE WASTE DISCHARGE REQUIREMENTS (WDR) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY'S JOINT WATER POLLUTION CONTROL PLANT (JWPCP) (NPDES PERMIT NO. CA0053813, CI-1758)

Thank you for your comments to the above-referenced WDR and NPDES permit. The following are the Los Angeles Regional Water Quality Control Board (Regional Board) staff's responses to your comments provided on March 13, 2006:

A. Comments Regarding Mass Emission Limitations

Comment 1: *Design capacity flows should be the basis for dry weather mass effluent limitations.*

Contrary to federal regulations at 40 C.F.R. §122.45(b)(1), the Tentative Permit includes final effluent mass limitations that are based on the 1997 JWPCP permit design flow of 385 mgd, rather than the design flow specified in the Districts' 2001 Report of Waste Discharge of 400 mgd. It is the Districts' understanding that this decision is based on anti-backsliding and anti-degradation concerns. We request that the design flow of 400 mgd be used in the calculation of final effluent mass limitations. Use of the design flow is consistent with anti-backsliding and antidegradation concerns, as detailed below. Anti-backsliding, which has a statutory and regulatory foundation, applies to effluent limits in NPDES permits. Antidegradation, which has a regulatory and state policy foundation, applies to ambient water quality. An analysis of these requirements and how they apply in this instance is provided below.

With regard to anti-backsliding, Section 402(o) of the CWA prohibits a permit from being reissued with less stringent effluent limitations unless certain exceptions prevail such as if "material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation"¹ or "Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance."² The CWA also specifies that in no case can a reissued or modified permit contain less stringent effluent limitations that would violate a water quality standard.³ These same conditions are reflected in the exceptions listed the regulations that preceded the statutory amendments, namely 40

¹ 33 U.S.C. §1342(o)(2)(A), CWA section 402(o)(2)(A).

² 33 U.S.C §1342(o)(3), CWA section 402(o)(3).

³ CWA 402(o)(3).

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C.F.R. §122.44(l)(i). The State Water Resources Control Board (State Board) has addressed this issue in a precedential order, concluding that the Regional Board must reconsider the need for effluent limitations in light of the anti-backsliding exceptions contained in the Clean Water Act Sections 303(d)(4) and 402(o)(2), including the exception for new information in Section 402(0)(2)(B)(i).⁴

The Districts believe that the changes to treatment and performance at JWPCP satisfy these exceptions. When the NPDES permit was issued in 1997, the JWPCP discharged a blend of primary and secondary treated wastewater, with a dry weather design capacity of 385 mgd. That permit was issued for a five-year term, and was to have expired in 2002, but still remains in effect. As part of a Consent Decree with USEPA Region 9 and the Regional Board [No. 92 0061 RG (JRx)], the Districts were obligated to construct additional secondary treatment facilities and achieve compliance with full secondary treatment at the JWPCP by December 31, 2002. On January 7, 2003, the Districts informed the Regional Board that the JWPCP had achieved full secondary treatment on November 8, 2002. Since the issuance of the 1997 permit, the Districts and Regional Board have had the opportunity to evaluate the capability of the JWPCP in terms of treatment capacity and effluent performance. Information collected since issuance of the 1997 permit indicates that the plant has the ability, on average, to treat 400 mgd of wastewater to meet water quality standards. As such, a legitimate argument can be made by the Regional Board that CWA Sections 402(o)(2)(A) and 402(o)(2)(B)(i) and 40 C.F.R. §122.44(l)(i) are satisfied. This is also confirmed by information in the Tentative Permit Findings and statements in the Fact Sheet that substantial changes have been made to the JWPCP since the 1997 permit was issued, and that new information is available related to the capability of the plant since the 1997 permit was issued. These changes justify the use of 400 mgd in calculating less stringent mass emission effluent limitations than those contained in the 1997 permit and constitute an exception to the general rule against backsliding.

In addition, based on the discussion in Permit Finding II.P, the Regional Board has already allowed for some effluent limitations to be less stringent than those in the previous permit, and has acknowledged that this allowance is consistent with the anti-backsliding requirements of the CWA and federal regulations. Thus, further changes to the mass limits in accordance with anti-backsliding requirements should be equally justifiable.

With regard to antidegradation, the Regional Board has already declared in Section IV.F of the Fact Sheet that the changes at the JWPCP have led to improved water quality: "Although the design flow rate of the treatment plant has increased to 400 mgd, this increase has been accompanied by a significant improvement in the level of effluent treatment necessary to achieve full secondary treatment. As a result, both the quantity of discharged pollutants and quality of the discharge are expected to remain relatively constant or improve during this permit term, consistent with antidegradation policies." The Districts believe that this statement, made as a specific permit finding, would satisfy CWA Section 402(o)(3) that water quality standards will be met as well as the antidegradation requirements applicable to the permit if the basis for mass limitations is revised to 400 mgd in the tentative permit.

Furthermore, the increase in mass loading under the 400 mgd design flowrate, relative to the 385 mgd design flowrate, would be insignificant, representing an increase of less than four percent. An antidegradation analysis should not be needed at this time to justify the higher design flowrate, because the insignificant increase does not pose any risk of unreasonable degradation to the marine environment. The Districts believe that it has already been demonstrated that no unreasonable degradation of the marine environment is occurring as a result of the discharge from the JWPCP, based on the May 30, 2003 report submitted to the Regional Board entitled, "A Report on JWPCP Compliance with Clean Water Act §403(c) Ocean Discharge Criteria."

⁴ See County Sanitation Districts of Los Angeles County, Order WQ 2003-0009 (July 16, 2003), p 13.



Finally, use of mass limitations based on the 400 mgd design flow will provide the Districts with operational flexibility to route flows within the Joint Outfall System as necessary to perform maintenance and upgrades at the upstream water reclamation facilities on the system. In instances where flows need to be routed to the JWPCP from the upstream facilities, it may be necessary to operate the JWPCP at its 400 mgd capacity for limited periods of time.

Response: While Regional Board staff are in general agreement concerning the backsliding issues, it should be noted that the JWPCP operated at an average flow of 322 mgd during the period between January 2003 and August 2005. The use of the current design capacity of 400 mgd for the calculation of mass effluent limitations represents a large increase from this average flow. Therefore, consistent with the Hyperion permit, mass effluent limitations at this time are calculated using the 1997 design flow of 385 mgd. Included will be a reopener provision that is described in the response to the next comment.

Modification: There is no change in response to this comment except the minor revision in the footnote [1] for Effluent Limitations and Performance Goals (Section IV.B) in the Tentative Order to clarify that the design capacity is based on the dry weather discharge at JWPCP. (Additions are underlined, deletions are ~~lined over~~.)

Footnotes for Effluent Limitations and Performance Goals

[1] The daily mass emission calculations are based on the average design flow rate of 385 million gallons per day (mgd) specified in the 1997 Joint Water Pollution Control Plant (JWPCP) permit according to the Ocean Plan equation: $\text{lbs/day} = 0.00834 \times C_e$ (effluent concentration, ug/L) $\times Q$ (flow rate, mgd).

During storm events when flow exceeds the dry weather design capacity, the mass emission rate limits shall not apply. Only the concentration limits shall apply.

Comment 2: *The Order should include a reopener to modify the mass emission limitations after an antidegradation analysis.*

Notwithstanding our earlier comments on this issue, the Order should include a reopener to modify and recalculate the mass emission limitations, based on the current design capacity of 400 mgd, after the Districts conduct an antidegradation analysis. Order R4-2005-0020 for the Hyperion Treatment Plant includes a reopener for the express purpose of modifying the mass emission rates after the Discharger conducts an antidegradation analysis (page 47, Section VI.B.). The Districts believe that similar language is warranted in this Order.

Response: Regional Board staff agree to include a reopener in the Tentative Order, which allows the Regional Board to modify the mass emission limitations, based on the current design capacity of 400 mgd, after the Districts conduct an Antidegradation Analysis to demonstrate that no adverse impacts would result from the increased flow rate.

Modification: The following has been added in the Tentative Order as a reopener provision:

" This Order may be reopened and modified, to incorporate new mass emission limitations based on the current JWPCP's design capacity of 400 mgd provided that the Discharger requests and conducts an Antidegradation Analysis to demonstrate that no adverse impacts would result from the increased flow rate."



B. Comment Regarding Reasonable Potential

Comment: *Limitations for acute and chronic toxicity should be removed.*

In Table 1 of Appendix 1, the Regional Board concluded that the JWPCP final effluent does not have a statistical basis for acute or chronic toxicity limitations based on reasonable potential (RP). However, acute and chronic toxicity limits were maintained for Discharge Serial Nos. 001 and 002 and chronic toxicity limitations were added for Discharge Serial Nos. 003 and 004 citing best professional judgment (BPJ). There is no clear explanation of why and how BPJ was used in determining that chronic toxicity limits were necessary, but an explanation for the acute limit (as applied to Discharge Serial Nos. 001 and 002) is provided in Attachment F (Section IV.C.6, page F-22). This section cites guidance from the California Ocean Plan (Ocean Plan), a lack of toxicity data using marine species, the presence of ammonia and chlorine prior to discharge, and the need for a "backstop" to prevent "toxic pollutants in toxic amounts" as the rationale for the acute limit. The Districts would like to address these issues and demonstrate that there is no justification for toxicity limitations in the JWPCP permit.

The Ocean Plan provides guidance on the types of toxicity tests required based upon the dilution of the discharge (2005 Ocean Plan, page 14). According to this guidance, chronic toxicity testing is required for discharges with minimum initial dilutions between 100:1 and 350:1. Acute toxicity testing is optional for discharges with dilution in this range and left to the discretion of the Regional Board. The Regional Board is not obligated to include acute toxicity tests as part of the NPDES permit. However, even if this optional testing requirement is required in a permit, there is no requirement to impose an acute limit. Given that the Ocean Plan does not require acute toxicity testing, the Regional Board must have chosen to impose an acute toxicity limit based on the other factors listed in Attachment F: the lack of toxicity data using marine species; the presence of ammonia and chlorine in the JWPCP effluent; and the need for a toxic pollutant "backstop." These issues are addressed below individually. The Districts believe this discussion provides sufficient evidence to eliminate these concerns as a basis for an acute toxicity limit.

In anticipation of revisions included in the 2005 version of the Ocean Plan, and potential questions regarding acute toxicity, the Districts conducted acute toxicity tests using marine species. Between June of 2003 and October of 2005, acute tests were conducted using vertebrate (Topsmelt) and invertebrate (Mysidopsis bahia) test organisms. These bioassays were performed in accordance with the current NPDES testing requirements and meet all QA/QC standards. These data were provided to the Regional Board staff on February 22, 2006, and detailed reports for each test can be provided upon request. An RP analysis of these data confirms that JWPCP final effluent has no reasonable potential to cause acute toxicity under the 2005 Ocean Plan acute toxicity provisions (Figure 1). Therefore, based on the toxicity data using marine species, a limit on acute toxicity is not justified based upon the RP analysis.



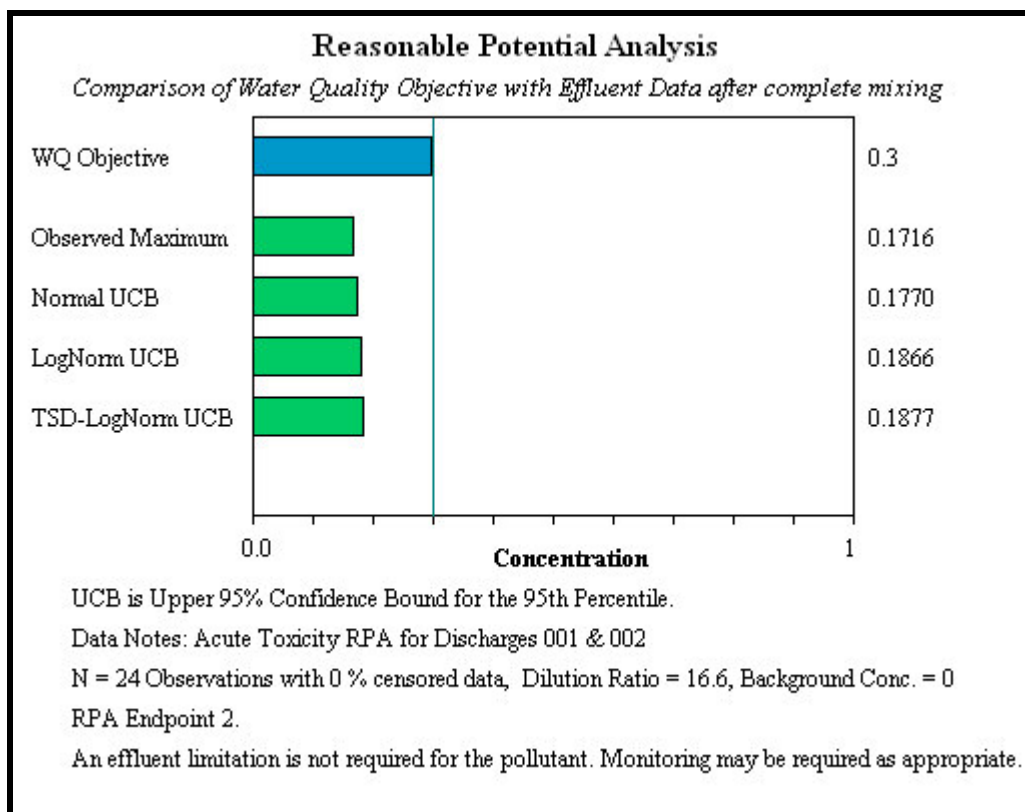


Figure 1. Acute toxicity RP analysis of JWPCP final effluent according to 2005 Ocean Plan provisions

In terms of the ammonia and chlorine in JWPCP effluent, these compounds pose very little risk as a source of acute toxicity at the concentrations found in the effluent from JWPCP, particularly after the minimum initial dilution. In the case of chlorine, effluent limitations have been placed in the permit to address the effects of chlorine in the discharge. Ammonia is present in the JWPCP effluent at very consistent concentrations (30-40 parts per million (ppm)), but is highly diluted once it is discharged. Using the acute dilution credit, the typical concentration of ammonia at the edge of the acute mixing zone is 1.8 – 2.4 ppm, well below the Ocean Plan acute limit of 6 ppm. Furthermore, if ammonia toxicity was a problem, the Districts would have seen acute toxicity in our routine monitoring data or special study data using the new Ocean Plan requirements and this toxicity would have resulted in a finding of RP. However, our RP analysis of historical monitoring data, and the more applicable marine species data presented in Figure 1, provides direct evidence that ammonia toxicity is consistently absent from the discharge. Additionally, the tentative permit includes a reopener provision, which states “[t]his Order may be reopened and modified, to incorporate new limits based on future reasonable potential analysis to be conducted based on on-going monitoring data collected by the Discharger and evaluated by the Regional Water Board and USEPA.” The inclusion of this requirement will result in the addition of future effluent limitations should monitoring data demonstrate a need which does not currently exist.

The Districts are aware that the Regional Board included acute toxicity effluent limitations in the NPDES permit (reference Order No. R4-2005-0020) for the Hyperion WWTP. However, it should be noted that there is a material difference between historical acute toxicity results for Hyperion WWTP effluent and JWPCP effluent. Specifically, acute toxicity in Hyperion WWTP effluent has historically been identified as stated in Finding No. 56 of their NPDES permit: “[b]ecause ammonia and marine



acute toxicity effluent quality data for POTW ocean discharges having dilution ratios greater than 84:1 periodically show acute toxicity related to effluent ammonia concentrations and the current operation of the Hyperion Treatment Plant does not effectively remove ammonia, the Regional Board and USEPA have determined that the Hyperion discharge has reasonable potential to exceed the current Ocean Plan objective for acute toxicity." As previously mentioned, unlike the Hyperion WWTP, acute toxicity has not been detected in JWPCP effluent, consequently no reasonable potential exists and no limit is required. If the Regional Board persists in maintaining an acute toxicity limit, an analysis must be performed under Water Code section 13263 prior to adoption of this limit.

Finally, using the acute toxicity limit as a toxicity backstop is redundant since the permit already requires chronic toxicity testing. Chronic toxicity testing in combination with Toxicity Reduction Evaluation requirements are a more effective backstop because chronic toxicity tests are more sensitive to the long-term effects of potential toxicants in wastewater. The imposition of an acute toxicity limit for this purpose, particularly in light of the lack of any reasonable potential to cause acute toxicity, is redundant, unnecessary, and ineffective.

The Districts have long supported the use of chronic toxicity tests in NPDES permits as a tool to assimilate the combined effect and complex interactions of all toxicants in a wastewater effluent. We also fully support the use of accelerated monitoring and TRE triggers in response to toxicity. However, the demonstrated lack of RP for acute and chronic toxicity in this discharge clearly indicate that toxicity limits are not warranted. Further, the BPJ arguments used to justify the acute limit are unfounded and/or already covered by other permit requirements. Finally, any assertion that the toxicity requirements in the JWPCP permit should be consistent with the recently adopted Hyperion NPDES permit would fail to recognize significant differences between the toxicity of the two discharges and availability of relevant toxicity data. Since the JWPCP discharge has not been toxic and has shown no reasonable potential to be toxic, the Districts request the removal of acute and chronic toxicity limitations from the Tentative Order. In the alternative, the Districts support the conversion of these limitations to performance goals.

Response: Regional Board staff agree that effluent limits for constituents with no RP are not necessary. As a result of the RPA, effluent limits have been removed for 26 constituents when compared with the 1997 permit. Although there is no RP for the acute toxicity, we believe that an acute toxicity limit in combination with the chronic toxicity limit serve as the final "backstop" for effluent limits that have been removed and an indicator of synergistic effects of constituents. In addition, there are more than 1200 significant industrial users (SIUs) in the JWPCP Service Area that discharge into the JWPCP and six upstream plants. Only a small subset of pollutants discharged is covered in the monitoring program. There is no requirement at this time in the Tentative Permit for the testing of emerging chemicals that may have potential impact on the environment. For the reasons mentioned above, we believe that it is appropriate to prescribe both acute toxicity and chronic toxicity effluents limit for main Outfalls (Discharge Serial Nos. 001 and 002) in the Tentative Permit.

Modification: There is no change warranted in response to this comment.

C. Comments Regarding Whole Effluent Toxicity (WET) Provisions

Comment 1: *Acute toxicity testing is not required according to the Ocean Plan.*

The 2005 Ocean Plan only requires acute testing when the minimum initial dilution (MID) is greater than 1000:1. The Ocean Plan states that at minimum initial dilutions (MIDs) between 100:1 and 350:1 chronic testing is required, but acute testing may be required "as necessary for the protection of beneficial uses of ocean waters" (reference pg 13, 2005 Ocean Plan). All ocean discharge permits



should follow the Ocean Plan requirements and only require acute toxicity testing when previous acute testing indicates that there is reasonable potential for acute toxicity.

Requested Tentative Permit Revision:

The Districts request that the requirement for acute toxicity testing be deleted in its entirety.

Response: While the 2005 Ocean Plan provisions specifically require chronic toxicity testing at minimum effluent dilutions ranging from 100:1 to 350:1, paragraph III.C.4.c of the 2005 Ocean Plan does not prohibit permitting authorities from also requiring acute toxicity testing in such NPDES permits with dilutions in this range. Since the acute toxicity limit has been prescribed in the Tentative Permit, the acute toxicity testing must be included in the Tentative Permit.

Modification: There is no change warranted in response to this comment.

Comment 2: *Frequency of acute and chronic toxicity tests should be reduced.*

Guidance issued by Region 9 of the United States Environmental Protection Agency (USEPA) and draft guidance issued by USEPA headquarters on the implementation of WET programs support the reduction in monitoring frequency under certain conditions. Draft national USEPA guidance (November, 2004) supports a reduction in testing frequency for discharges with a substantial record of compliance. Additionally, according to USEPA Region 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs (May, 1996)⁵, monthly testing is suggested only when no previous data are available, and recommends that test frequency be reduced if the monthly data show no reasonable potential for toxicity (page 2-28). The Districts have conducted monthly acute and chronic toxicity tests for over fifteen years. Based upon this extensive dataset, the Regional Board concluded that JWPCP final effluent does not have reasonable potential to cause acute or chronic toxicity at any of the outfalls (Discharge Serial Nos. 001, 002, 003, and 004). The Districts have also demonstrated a lack of reasonable potential for acute toxicity using marine species consistent with the 2005 Ocean Plan requirements, as previously described. Therefore, the imposition of monthly acute and chronic testing in this permit is inconsistent with available implementation guidance. The Districts believe that the accelerated toxicity monitoring and subsequent Toxicity Reduction Evaluation (TRE) triggers ensure a thorough response to any toxic sample and is consistent with the intent of all applicable regulations and guidance. In addition to our previous request that toxicity limits be removed or, instead, included as performance goals in the NPDES permit, the Districts request that the toxicity testing frequency in the Tentative Permit be reduced from monthly to quarterly as there is no basis for more frequent monitoring.

Requested Tentative Permit Revision:

Reduce frequency of chronic toxicity testing from monthly to quarterly. If acute toxicity testing continues to be required (see Comment C.1), reduce its frequency from monthly to quarterly.

Response: To be consistent with other major NPDES permit such as the Hyperion permit and in consideration of the large scale of the JWPCP discharge, the Regional Board staff believe that the monthly monitoring for acute and chronic toxicity is justified. In the Tentative Permit, all of the Ocean Plan Table B pollutants, except metals, require only quarterly monitoring. In light of the 1200 SIUs in the JWPCP service areas, the monthly monitoring data of acute and chronic toxicity may serve as an additional safeguard and may be valuable in the evaluation of the Pretreatment Program.

Modification: There is no change warranted in response to this comment.

⁵ All referenced documents are hereby incorporated by reference and should be included in the administrative record for this permit. If the Regional Board does not have copies of the referenced documents, the Districts can provide copies upon request.



Comment 3: *Requirements for chronic toxicity test methods should be consistent with those in the Ocean Plan.*

The Tentative Permit specifies exclusive use of the USEPA West Coast Marine Chronic methods. This is inconsistent with the Ocean Plan and does not recognize the practical constraints of test organism availability. The Ocean Plan establishes two tiers of test methods in response to this issue. First tier methods use West Coast species while second tier assays utilize East Coast species that are lab-cultured by multiple suppliers and available year-round. Table III-1 of the 2005 Ocean Plan includes the following note, "The first tier test methods are the preferred toxicity tests for compliance monitoring. A Regional Board can approve the use of a second tier test method for waste discharges if first tier organisms are not available."

The Districts agree with the preferential use of West Coast species for chronic toxicity testing. However, there are some practical constraints with these methods that require more flexibility in the choice of marine chronic test methods. Many of the test organisms are wild-caught and their availability can be limited due to seasonality or bad weather. Other test species, such as Topsmelt larvae, are occasionally unavailable for extended periods of time. The requirement to use species that may not be available places the Districts in jeopardy of violating the permit by failing to meet monitoring and/or accelerated testing initiation requirements without a route to compliance. Therefore, the Districts request that the first sentence of Section V.B.1 on page E-22 of the Tentative MRP be revised to read: "The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite effluent samples in accordance with the method selection requirements contained in the 2005 California Ocean Plan."

Requested Tentative Permit Revision:

Revise the first sentence of Section V.B.1 on page E-22 of the Tentative MRP to read: "The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite effluent samples in accordance with the method selection requirements contained in the 2005 California Ocean Plan."

Response: Regional Board staff recognize that the 2005 California Ocean Plan allows the use of East Coast species for the chronic toxicity testing while the West Coast species is not available.

Modification: Section V.B.1 of the Monitoring and Reporting Program (Attachment E) has been modified as follows:

1. **Methods and test species.** The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite effluent samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, 1995, (EPA/600/R-95/136). Pursuant to the 2005 California Ocean Plan, upon the approval of the Executive Officer of the Regional Water Board, the Discharger may use a second tier organism (e.g., silverside) if first tier organisms (e.g., topsmelt) are not available. However, the Discharger is required to immediately resume the chronic toxicity test using the original testing organism as soon as this organism becomes available. When a chronic toxicity test method that incorporates a 96-hour acute toxicity endpoint is used to monitor toxicity at the chronic IWC in effluent discharged from Discharge Serial No. 003 or 004, the 96-hour acute toxicity statistical endpoint shall also be reported as LC50 and TUa, along with other chronic toxicity test results required by this permit.



Comment 4: *The permit should follow USEPA's recommendations and specifically require the use of point estimates for analyzing toxicity test data.*

The use of hypothesis testing to analyze chronic toxicity tests is not specifically required in the permit, but the requirement to evaluate the pMSD limits and the subsequent discussion of five possible compliance outcomes (Tentative MRP page E-23, Sections V.C.4 and V.C.5) suggests that hypothesis tests are expected to be used.⁶ The problems associated with the use of hypothesis tests for toxicity compliance determination in the NPDES program have been well documented and recognized by USEPA. Hypothesis tests result in an inconsistent definition of toxicity between tests and laboratories, statistically invalid results (even following conversion to TUs) for reasonable potential determination and multiple test averaging, and an inherent disincentive to minimize within test variability. When effect based statistics, such as point estimation, are used to express toxicity results, all of these problems are alleviated and only two possible compliance outcomes are possible, pass or fail.

*For these reasons, USEPA has consistently recommended the use of point estimates (e.g., IC25) rather than hypothesis tests to analyze whole effluent toxicity data since the issuance of the "Technical Support Document for Water Quality-based Toxics Control" (TSD; EPA/505/2-90/001, page 6) in 1991. In the TSD, the USEPA discusses the relative merits and limitations of both techniques and concludes, "comparisons of both types of data indicate that an NOEC derived using an IC25 is approximately the analogue of an NOEC derived using hypothesis testing. For the above reasons, if possible, the IC25 is the preferred statistical method for determining the NOEC." In subsequent method protocols and rule-making, USEPA has continued to voice their preference of point estimates for the analysis of toxicity data. For example, in the final rule (Federal Register Vol. 67, No. 223; Tuesday, November 19, 2002) the USEPA confirms that "as previously stated in the method manuals (USEPA, 1993; USEPA 1994a; USEPA 1994b) and the USEPA's Technical Support Document (USEPA 1991), USEPA recommends the use of point estimation techniques over hypothesis testing approaches for calculating endpoints for effluent toxicity tests under the NPDES Permitting Program" (<http://www.epa.gov/fedrgstr/EPA-WATER/2002/November/Day-19/w29072.pdf>, pg. 69958). Following promulgation of the rule, new method manuals were issued which, again, recommend the use of point estimate procedures rather than hypothesis tests. Specifically, the newest USEPA marine chronic toxicity test methods manual discusses the choice of statistical analysis and states **"NOTE: For the NPDES Permit Program, the point estimation techniques are the preferred statistical methods in calculating end points for effluent toxicity tests"** (<http://www.epa.gov/WET/disk1/ctm.pdf>, pg. 44). The bolded text actually appears in bold in the manual. Identical language and emphasis appears in the newest USEPA freshwater chronic toxicity test methods (<http://www.epa.gov/WET/disk3/ctf.pdf>, pg. 41).*

Despite these very strong recommendations from USEPA, it appears that the intent of the Regional Board is to require hypothesis testing to determine compliance with the toxicity limitations in the Tentative Order. The Ocean Plan does not specifically require the use of hypothesis tests to determine the NOEL for chronic toxicity tests, but defines the NOEL as "the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test as listed in Appendix II." The methods listed in Appendix II allow the use of either hypothesis tests OR point-estimates to measure toxicity. Given the problems with

⁶ The table referenced in the Tentative Permit for the pMSD limits only contains one endpoint (survival) from one West Coast method (*Holmesimysis*). In fact, every West Coast method already has pMSD test acceptability criteria incorporated into the method, which MUST be met for a valid test. Therefore, the reference to Table 3.6 in the Variability Guidance Document and the subsequent five compliance outcomes are not required (one can not report tests which do not meet the pMSD limits in the method) and should be stricken from all ocean discharge permits regardless of whether hypothesis tests or point estimates are used.



hypothesis testing, and the guidance from USEPA, the Tentative Order should specifically require the use of point-estimates to measure acute (LC50) and chronic toxicity (IC25).

Requested Tentative Permit Revision:

Specifically require the use of point-estimates by defining the NOEC in footnote 24 on page 22 of the Tentative Order as follows: "NOEC is expressed as the EC/IC25 as determined by the result of a critical life stage toxicity test using point estimate techniques described in the approved protocols." The same NOEC definition should be included on Page 22 of Attachment E, in the Chronic Toxicity Testing section.

Response: USEPA and the Regional Board staff disagree with the Districts' assertion that the use of hypothesis testing (i.e., No Observed Effect Concentration; NOEC) to analyze biological endpoint data for chronic toxicity is not specified in the Tentative Permit; such a requirement is found in footnote [24] of the Tentative Order. We also disagree with the Districts' assertion that the Ocean Plan's "No Observed Effect Level" – the maximum percent effluent that causes "no observable effect" on the test organism, or NOEL – does not require use of hypothesis testing. A cursory review of the literature on this point yields the NOEL definition of "same as NOEC". In contrast, point estimates allow a particular biological response in a specified percent (p) of test organisms (e.g., IC25).

We now turn to the Districts' comment regarding USEPA recommendations related to WET statistical endpoints and chronic hypothesis testing conducted under this permit. As the Districts are aware, USEPA allows State regulatory agencies the choice of either hypothesis testing or point-estimation techniques for developing permit conditions and determining compliance. While several important drawbacks of the NOEC have been identified, hypothesis testing, per se, with safeguards is approved even by critics of NOECs. (See Fox, J.F. and Denton, D.L., 2002. Whole effluent toxicity, Encyclopedia of Environmetrics, Vol. 4, pp. 2377-2381.) Such safeguards can include: A series of concentrations tested to verify and quantify a concentration-response relationship; power can be increased; the critical "in-stream waste concentration" can be closely bracketed by adjacent concentrations; an Minimum Significance Difference (MSD) can be applied as a test sensitivity criterion. Because the Ocean Plan specifies use of the NOEC for chronic toxicity and because a majority of the safeguards described above have been incorporated into the draft permit, the final permit is issued without change. USEPA has recommended using point estimate procedures in NPDES testing even when NPDES self-monitoring data are required to be determined using hypothesis testing techniques. The chronic toxicity requirements in this Tentative Permit are consistent with both USEPA recommendations in the WET methods and TSD and State water quality standards in the Ocean Plan, in that the Tentative Permit requires chronic toxicity self-monitoring data to be reported using hypothesis testing techniques, while also requiring reporting of specified point estimates for calculating facility-specific CVs for toxicity. We note that California's long-standing Ocean Plan chronic WET program has been well received by regulators, ocean dischargers and environmental groups, alike, and see no need to change course at this time.

Modification: No WET statistical endpoint changes have been made in response to this comment.

Comment 5: *PMSD test interpretation requirements are inapplicable and unnecessary.*

The Tentative Permit requires use of Table 3-6 in Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program (USEPA/833-R-00-003, June 2000) to qualify results of the WET tests using calculated pMSD. However, the pMSD parameters in this document only apply to one of the ten West Coast marine species. Furthermore, the West Coast methods have test acceptability criteria based upon the pMSD, which must be met for a test to be valid, and are therefore more stringent than those found in the referenced guidance document. The use of the referenced document also conflicts with the pMSD evaluation criteria

contained within the promulgated East Coast methods allowed for testing by the Ocean Plan when West Coast methods are unavailable. The referenced guidance document values were not based on data from the USEPA interlaboratory study that were used to develop the pMSD criteria in the promulgation of the East Coast methods. Finally, the idea that a toxicity test result can take one of five different forms as suggested in this section is baseless. When it comes to compliance determination, a result either passes or it fails. Therefore, this section of the permit is erroneous, largely irrelevant, and unnecessary. The Districts request that Section V.C.5 on page E-23 of the MRP be deleted from the permit since pMSD criteria are already required as a part of normal QA/QC procedures for these methods and this section unnecessarily confuses the issue regarding toxicity test result interpretation and compliance determination.

Requested Tentative Permit Revision:

Delete Section V.C.5 on page E-23 of the MRP.

Response: The permit language in Attachment E., Section V.C.5 of the Tentative Monitoring and Reporting Program has been deleted and replaced with updated language consistent with the current WET test methods specified in the 2005 California Ocean Plan. The 2002 freshwater and saltwater methods incorporated the PMSD values developed in the 2000 variability guidance document. Hence, there is no need to reference the 2000 variability guidance any longer. The 1995 West Coast saltwater methods have always had MSD values.

Modification: Section V.C.5 in the Tentative MRP has been replaced with the following:

"Because this permit requires sublethal hypothesis testing endpoints from the 1995 West Coast marine and estuarine WET test methods manual and the 2002 East Coast marine and estuarine WET test methods manual, with-in test variability must be reviewed and variability criteria [e.g., Minimum Significance Difference (MSD) bound, Percent ., Minimum Significance Difference (PMSD) bounds] must be applied, as specified in the test methods manuals. The calculated MSD (or PMSDs) for both reference toxicant test and effluent toxicity test results must meet the MDS bound (or PMSD bounds) variability criteria specified in the test methods manuals."

D. Comment Regarding Use of Pesticides within the Area Tributary to the JWPCP

Comment: *The exclusion of any product registered under FIFRA would unnecessarily require a prohibition on the use of many household pesticides, and would also restrict the Districts' ability to minimize wastewater overflows through the use of chemical root control products.*

Section VI.A.2.t. on page 28 of the Tentative Permit prohibits "the discharge of any product registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) to any waste stream which may ultimately be released to waters of the United States, unless specifically authorized in this permit or another NPDES permit." It further notes that, "[t]his requirement is not applicable to products used for lawn and agricultural purposes." Because the JWPCP effluent is released to waters of the United States, this requirement could reasonably be interpreted to prohibit the use of any pesticide that could enter sewers tributary to JWPCP. While the Districts strongly support efforts to minimize discharges of pesticides to sewers, this requirement is unnecessarily prescriptive and overly broad. There is no evidence to indicate that this requirement is necessary to protect established beneficial uses.

FIFRA regulates the sale and use of pesticides, which are defined as "any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest." Pesticides include insecticides, herbicides, rodenticides, fungicides, antimicrobials, and insect repellents. Normal use of many of these pesticides could result in the pesticides entering sewers. Examples include application of root control agents to sewers to prevent sewer blockages, application of insecticides to sewer



manhole crowns to control cockroaches, application of insecticides to drains in restaurants to control cockroaches, use of insect repellents such as DEET (N, N-diethyl-meta-toluamide), and laundering of clothing impregnated with permethrin. Pesticides may also reach sewers through less direct pathways, such as rinsing of application equipment and rinsing of counters and floors that have been treated with pesticides.

The Districts do not have the authority to prohibit all use of FIFRA-registered pesticides within its service area; such authority is retained by the State of California or federal government. Therefore, if this requirement is retained in the JWPCP permit, the Districts would be placed in the untenable position of being required to take action for which no authority is available, and expose the Districts to unwarranted liability for noncompliance with permit conditions.

Any potential adverse water quality impacts from pesticide usage are adequately addressed by Receiving Water Limitation V.C.4 on page 25, which states that wastes discharged shall not "contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses." Therefore, the proposed language in Section VI.A.2.t. on page 28 of the Tentative Permit is unnecessary.

Requested Tentative Permit Revision:

Delete Section VI.A.2.t. on page 28 of the Tentative Permit.

Response: Regional Board staff agree that the implementation of this provision may have some potential problems. Since the narrative requirement "the discharge can not contain pesticides that cause any adverse water quality impacts" is already in the Tentative Permit, this Standard Provision will then be deleted from the Tentative Permit.

Modification: Section VI.A.2.t. of the Tentative Order has been removed.

~~t. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.~~

E. Comment Regarding Biosolids Management Requirements

Comment: *Requiring notice 24 hours prior to a field change is unnecessarily restrictive.*

Section IV.B on page 3 of Attachment I of the Tentative Permit requires that the Districts require their "contractors that apply Class B biosolids to notify USEPA Region 9 and the applicable Regional Water Board or State Agency by e-mail, at least 24 hours prior to changing application fields, of the new field to which they will be moving." For Class B land application contractors who change fields frequently, prior notification of field changes is not practical. Sudden weather changes, staff absences, and sudden increases/decreases in hauling of biosolids can affect a contractor's selection of fields and prohibit the contractor from sending advanced notification. This section should be removed as improperly included in an NPDES permit (since these land applications are covered by other regulatory programs), or at least changed to require notice within 72 hours after changing application fields, in order to assure that a sufficient amount of time is given for contractors to submit a notice of field changes. Such a change would provide the contractors the flexibility they need to properly operate their fields.



Requested Tentative Permit Revision:

Remove Section IV.B on page 3 of Attachment I of the Tentative Permit or revise to read: "The Districts shall require their biosolids management contractors that apply Class B biosolids to notify USEPA Region 9 and the applicable Regional Water Board or State Agency by e-mail, within 72 hours after changing application fields, of the new field to which they have moved."

Response: Regional Board staff have consulted with USEPA on this issue. We agree with the Districts that, on some occasions, where the contractors have to choose another field because of rain, changes in load, etc., they may not be able to meet the advanced notification requirement. However, we believe that the contractors should email USEPA and the applicable Agency as soon as possible after changing application fields on these special occasions. To provide the flexibility to the contractors, this Tentative Permit allows the submittal of notice within 48 hours after changing application fields on special occasions.

Modification: In response to this comment, Section IV.B on page 3 of Attachment I has been revised as follows:

"The Districts shall require their biosolids management contractors that apply Class B biosolids to notify EPA Region 9 and the applicable Regional Water Board or State Agency by e-mail, at least 24 hours prior to changing application fields, of the new field to which they will be moving. If circumstances arise in which the contractors need to select alternate fields, they should notify EPA and the applicable Regional Water Board or State Agency within 48 hours after changing fields."

F. Comment Regarding the Implementation of Pollution Prevention Plans

Comment: *Language requiring implementation of Pollution Minimization Programs needs to be removed.*

Language requiring the Districts to conduct or implement a Pollution Minimization Plan should be removed from the Tentative Permit (see pages 31 and 32) as this language contrary to state law. The words "and conduct" and "and implementation" must be removed in accordance with the SWRCB's precedential order in the Tosco Avon Refinery case, Order No. 2001-06. Under this case, it was found that regional boards lack the authority to require incorporation of or "implementation" of a Pollution Minimization/Pollution Prevention Program in a state-issued permit. See Water Code Section 13263.3(k), which states, "A regional board . . . may not include a pollution prevention plan in an waste discharge requirements or other permit issued by that agency," and Order No. 2001-06 at 38-40 and 60, para. 9 (March 7, 2001), which states, "The Regional Board cannot require in a permit that a discharger implement a pollution prevention plan."

Requested Tentative Permit Revision:

Revise Section VI.C.3.c on pages 31 and 32 to remove the language referring to "and conduct" and "and implementation."

Response: This is the language in the 2005 California Ocean Plan that was adopted by the State Water Resources Control Board and approved by USEPA. The word "conduct" is used in the language.

Modification: There is no change warranted in response to this comment.



G. Comments Regarding Spill Response

Comment 1: *The Tentative Permit should not contain requirements to notify other agencies regarding spills, overflows, and bypasses beyond notifications required by law.*

Section VI.C.5.c(2)(a) on Page 35 contains requirements that go beyond state law regarding notification of the State Office of Emergency Services (OES) and the local health agency in the case of spills, overflows, and bypasses. In particular, it requires OES notification for all overflows of 1,000 gallons or more. The Water Code does not require this level of notification; rather it requires notification to OES of overflows of 1,000 gallons or greater only in the case where these overflows reach receiving waters.⁷ Similarly, the Health and Safety Code does not contain the levels of notification required in the permit.

It is inappropriate for the Regional Board to compel reporting to other agencies beyond what is required by the other agencies. Each agency has its own needs for information, and they may or may not coincide with the information needs of the Regional Board. It is not within the purview of the Regional Board to determine such information needs, or to establish reporting requirements for other agencies.

Requested Tentative Permit Revision:

Revise the first sentence of Section VI.C.5.c(1) on page 35 of the Tentative Permit to read: "For spills, overflows or bypasses of 500 gallons or more that has flowed to receiving waters or entered a shallow groundwater aquifer or has public exposure, and all spills, overflows and bypasses of 1,000 gallons or more, the Discharger shall report such spills to the Regional Water Board, ~~the State Office of Emergency Services and the local health agency~~ by telephone or electronically as soon as possible but not later than 24 hours of after knowledge of the incident. Spills, overflows, and bypasses shall also be reported to the State Office of Emergency Services and the local health agency in accordance with state and local laws."

Response: Regional Board staff agree that different agencies require different notification levels for spills, overflows and bypasses and that there are statutory requirements. To clarify the notification requirements for different agencies, Spill Reporting Requirements in the Tentative Permit have been revised. Please note that more stringent sampling and reporting requirements are prescribed in the revised language in response to Heal the Bay's comments and recent spill incidents at facilities operated by the Districts.

Modification: Section VI.C.5. c.(2) in the Tentative Order has been revised as follows:

(2) For certain spills, overflows and bypasses, the Discharger shall make reports and conduct monitoring as required below:

(a) For any spills or overflows of any volume, the Discharger shall immediately notify Department of Health Services and the local health agency.

(a) (b) ~~For spills, overflows or bypasses of 500 gallons or more~~ any volume that flowed to receiving waters or entered a shallow ground water aquifer or has public exposure, ~~and all spills, overflows and bypasses of 1,000 gallons or more,~~ the Discharger shall report such spills to the Regional Water Board, ~~the State Office of Emergency Services and the local health agency~~ by telephone or electronically as soon as possible but not later than 24 hours of knowledge of the incident. The following information shall be included in the report: location; date and time of spill; volume

⁷ Water Code Section 13271(a).



and nature of the spill; cause(s) of the spill; mitigation measures implemented; and corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

- (c) For any spills or overflows of 1000 gallons or more, the Discharger shall immediately notify the State Office of Emergency Services.
- ~~(b)~~ (d) For spills, overflows or bypasses of any volume 500 gallons or more that reach receiving waters, the Discharger shall obtain and analyze grab samples for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible and safe) in order to define the geographical extent of impact of the spill. This monitoring shall be on a daily basis from time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or cessation of monitoring is authorized by the County Department of Health Services.
- ~~(e)~~ (e) For spills, overflows or bypasses of any volume 500 gallons or more that flowed to receiving waters or entered a shallow ground water aquifer, and all spills, overflows and bypasses of 1,000 gallons or more, the Discharger shall ~~make a good faith effort to~~ analyze a grab sample of the spill or overflow for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern depending on the area and nature of spills or overflows if feasible, accessible, and safe.
- ~~(f)~~ (f) The Regional Water Board notification shall be followed by a written preliminary report five working days after verbal notification of the incident. Within ~~40~~ 30 days after submitting preliminary report, the Discharger shall submit the final written report to this Regional Water Board. The written report shall document the information required in subparagraphs (a) and (c) above, monitoring results and any other information required in Provision V.E.1 of the Standard Provisions (Attachment D). An extension for submittal of the final written report can be granted by the Executive Officer for just cause.

Comment 2: *Analyzing samples of untreated wastewater released in overflows is unnecessary and could lead to cross-contamination of sampling equipment.*

Section VI.C.5.c(2)(c) of the Tentative Permit, on page 35, requires the Districts to make a good faith effort to analyze a grab sample of certain spills and overflows and analyze them for total and fecal coliforms or E. coli, and enterococcus, and "relevant pollutants of concern." This requirement is unnecessary and could potentially interfere with overflow response efforts. In the event of a wastewater overflow, the first priority of the Districts is to minimize any environmental and human health impacts of the overflow. Initial response efforts are focused solely on stopping the overflow and containing the wastewater. In this situation, it is not the Districts' priority, nor should it be, to get a sample of the overflow wastewater. Collection of samples of overflowing wastewater is in conflict with the initial goals of the first responders to immediately halt any overflows.

In addition to potentially interfering with overflow response efforts, the requirement to collect samples of untreated wastewater during overflows is unnecessary. The characteristics of untreated wastewater are well established. The Districts conduct routine monitoring of influent at their various wastewater treatment plants, and this monitoring has established typical untreated wastewater constituent concentrations. It is pointless to analyze the constituents in untreated wastewater in every reportable overflow event. For bacteriological sampling, it is also well established that untreated wastewater contains high levels of indicator bacteria. It is not clear what benefit is to be gained from quantifying the specific concentration for each reportable overflow occurrence. Additionally, since untreated wastewater does contain high concentrations of bacteria, collection of such samples could lead to contamination of any receiving water samples that are subsequently collected. The Districts



believe that bacteriological sampling of receiving waters, as is required in Section VI.C.5.c(2)(b) of the Tentative Permit, provides more useful information about any potential wastewater overflow impacts.

Requested Tentative Permit Revision:

Delete Section c(2)(c) on page 35 of the Tentative Permit.

Response: While the Districts state that influent monitoring at the JWPCP “has established typical untreated wastewater constituent concentrations”, the observed concentrations result from a “mix” from all sources in the sewershed, and are not site-specific, nor can site-specific threats to surface waters or groundwaters be determined from them. For example, a sewer overflow located directly downstream from a metal plating shop connection will have different characteristics and threats to water quality than one located directly downstream from a hospital connection. Both will have characteristics different than those of household sewage. The only way to measure the threat and to define what type of cleanup, or followup cleanup, are necessary, including removal of contaminated soil to protect groundwater quality, is to take site-specific samples and analyze for “relevant pollutants of concern”.

As far as the comment regarding cross-contamination of sewage samples and receiving waters, common practice during sample collection is to segregate “clean” from “dirty” samples, and these should be transported in separate coolers to the testing laboratory. In addition, both sets should have travel blanks.

Modification: There is no change warranted in response to this comment.

Comment 3: *Spill reporting requirements in the Tentative Permit do not allow for enough time to prepare reports.*

Spill reporting requirements (listed on Pages 34 and 35 of the Tentative Permit) do not allow for sufficient time for quarterly reports to be prepared. Section VI.C.5.c(1) on Page 34 specifies that the required quarterly reports detailing spills, bypasses, and overflows shall be due to the Regional Board fifteen days after the calendar quarter has ended. The reporting requirements for each spill are fairly detailed and as such, the Districts may need more time to prepare any report in case a spill occurs near the end of a calendar quarter (i.e., if a spill occurs December 31, and the reports are due January 15th). The Districts request that a month be allotted for preparation of spill reports after the end of each calendar quarter. This would be consistent with the reporting requirements the Districts must meet for the USEPA (as contained in Paragraph VI of the Modification to Findings of Violation and Order of Compliance issued to the Districts by the USEPA, dated March 9, 2004).

Requested Tentative Permit Revision:

Revise the third sentence of Section VI.C.5.c(1) on page 34 of the Tentative Permit to read: “On the ~~fifteenth~~ first day of ~~January, April, July, and October~~ February, May, August and November (15 days ~~one month~~ after the end of the fiscal quarter) of each year,...”.

Response: Regional Board staff recognize the reporting requirement in the *Modification to Findings of Violation and Order of Compliance* issued to the Districts by the USEPA on March 9, 2004. We agree to follow same reporting schedule.

Modification: Section VI.C.5.c(1) of the Tentative Order has been revised as follows:

“...On the ~~fifteenth~~ first day of ~~January, April, July, and October~~ February, May, August and November (15 days ~~one month~~ after the end of the fiscal quarter) of each year, the Discharger



shall submit to the Regional Water Board and USEPA a report listing all spills, overflows or bypasses occurring during the previous quarter. The reports shall provide:"

H. Comment Regarding Manifold Sampling Requirements

Comment: *Given the Districts' manifold and tunnel configuration, it is not possible to have unique sampling points for all four outfalls.*

In Table 1 on page E-6 of the MRP, under the heading Effluent Monitoring Station, the Tentative Permit lists four Monitoring Location names and states that:

"This effluent sampling location shall be located at the outfall manifold at Whites Point. Monitoring locations M-002A, M-002B, M-002C and M-002D are for Discharge Serial Nos. 001, 002, 003 and 004, respectively."

The effluent from the JWPCP is conveyed under the Palos Verdes peninsula to the White Point manifold in two tunnels that have multiple cross connections that allow for some mixing. On arrival at the manifold, the effluent from these two tunnels is further mixed before flowing out of the manifold and into the two routinely used ocean outfalls, Discharge Serial Nos. 001 and 002. On the extremely rare occasions that these outfalls are needed, Districts staff open valves at the manifold to allow effluent to flow out of Discharge Serial Nos. 003 and 004. There is no capability to collect samples that would represent only the very small amount of total flow coming into the manifold on these occasions that actually goes to these outfalls. Because the manifold is configured with the 90" (Serial No. 002) and 120" (Serial No. 001) outfall connections at opposite ends of the manifold structure, bracketing the two smaller outfalls, the most representative samples of effluent for these rarely used outfalls can be assigned to the adjacent routinely used sample point. Therefore, we request changes in the manifold sampling locations as indicated below.

Requested Tentative Permit Revision:

Revise language in the Tentative Permit regarding manifold sampling locations as indicated below.

Change Table 1, Monitoring Location Name section on page E-6 of Tentative Permit to read:

"M-002A, M-002B, ~~M-002C, M-002D~~"

Change Table 1, Monitoring Location Description section on page E-6 of Tentative Permit to read:

~~"This~~These effluent sampling stations shall be located at the outfall manifold at Whites Point. ~~Monitoring locations M-002A, M-002B, M-002C and M-002D are for Discharge Serial Nos. 001, 002, 003 and 004, respectively.~~ Samples taken at monitoring location M-002A shall be considered representative of discharges from Discharge Serial Nos. 001 and 003. Samples taken at monitoring location M-002B shall be considered representative of discharges from Discharge Serial Nos. 002 and 004."

Change Title of Item No. IV.A.1 on page E-13 of Tentative Permit to read :

"Monitoring Location (M-001, and Manifold Stations: M-002A ~~through and~~ M-002DB)"

Change First Sentence of Item No. IV.A.1 on page E-13 of Tentative Permit to read:



"The Discharger shall establish ~~a~~ sampling locations representative of ~~at~~ each point of discharge."

Change Fourth Sentence of Item No. IV.A.1 on page E-13 of Tentative Permit to read:

"The chlorine residual and bacteria samples shall be collected at effluent manifold monitoring locations ~~M-002A, M-002B, M-002C and M-002D~~ M-002A and M-002B for Discharge Serial Nos. 001, 002, 003 and 004, respectively. Effluent limitations for chlorine residual and bacteria applicable to discharges through Discharge Serial Nos. 001 and 003, shall apply at manifold monitoring location M-002A. Effluent limitations for chlorine residual and bacteria applicable to discharges through Discharge Serial Nos. 002 and 004 shall apply at manifold monitoring location M-002B."

Response: Regional Board staff agree with the Districts and will make the changes as proposed.

Modification: Changes have been made in the Tentative Permit as proposed by the Districts in this comment.

I. Comments Regarding Shoreline Microbiological Monitoring and Nearshore/Offshore Water Quality Monitoring

Comment 1: *The sampling frequency for Shoreline Microbiological Monitoring is not consistent with its purpose and applicable guidance, and therefore needs to be revised.*

The Tentative Permit proposes a minimum sampling frequency for shoreline monitoring of at least five times per week (Table 6, pg. E-28). The proposed frequency is in conflict with all currently applicable guidance for model ocean discharge monitoring and public health monitoring. Combined with the requirement in the permit that all three bacterial indicators (total coliform, fecal coliform, and enterococcus) be measured in each sample, the shoreline program as proposed in the Tentative Permit represents a two-fold increase in required bacteriological monitoring over our current program (6,240 analyses per year under the Tentative Permit versus approximately 3,270 analyses per year under the existing permit). Since this monitoring is expressly to "...provide public health officials with information necessary for the management of beach postings and closures" (pg. E-27), the monitoring frequency should be driven by those needs and designs.

Guidance for public health monitoring is provided by the State Water Resources Control Board's Beach Water Quality Work Group (BWQWG) using a risk-based approach to sampling frequency. This sampling guidance has been incorporated into model ocean discharge monitoring programs for POTWs⁸ and for municipal stormwater systems⁹ within southern California. The guidance is embodied in the following table extracted from Model Monitoring Technical Committee, 2004.

⁸ Schiff, K.C., J.S. Brown, and S.B. Weisberg. 2002. Model Monitoring Program for Large Ocean Dischargers in Southern California. Technical Report 357. Southern California Coastal Water Research Project. Westminster, CA. 101 pages.

⁹ Model Monitoring Technical Committee. 2004. [Model monitoring program for municipal separate storm sewer systems in southern California](#). Southern California Coastal Water Research Project, Westminster, CA. 79 pages + Appendices



Table 5-2. The Beach Water Quality Workgroup's risk-based approach for determining sampling frequency. The presence of lifeguards is an indicator of high-use beaches that are most likely above the 50,000 users threshold in Assembly Bill 411.

Usage	Likelihood of Contamination			
	High: e.g., stormdrains that flow continuously, frequently exceeding bacterial standards; pier areas	Medium: e.g., stormdrains that flow intermittently or continuously with infrequent exceedances of standards	Low: source nearby, do not expect a problem, stormdrain not flowing but if had a sewage spill it would flow to beach, if a problem it would be long term	No known source
High use beach: lifeguarded, high use surf/dive area	Daily or 5X per week	5X per week	Weekly or 5X per month	Weekly or 5X per month
Accessible sandy beach: low use surf/dive area or other water contact recreation area (wind surfing, kayaking)	2 – 3X per week	Weekly or 5X per month	Weekly or 5X per month	None
Other accessible shoreline: rocky coastline, small coves accessible by trails, private homes limit access	Weekly or 5X per month	Weekly or 5X per month	Monthly or other identification system	None
Inaccessible: beach area > 1 mile from access area	None	None	None	None

Table 1 below applies this sampling design to the shoreline monitoring stations along the Palos Verdes Peninsula. The station classifications range from High Use/Low Risk (S5 & S7) to Other Accessible Shoreline/Low Risk (S1). Accordingly, the appropriate sampling frequency for these sites is weekly or five times per month at five sites and monthly sampling at three sites.

Table 1. Classification of Shoreline Monitoring Stations per the BWQWG Sampling Guidance								
	S1	S2	S3	S5	S6	S7	SM	SB
	Long Point	Abalone Cove	Portuguese Bend	White Point	Wilder Addition	Cabrillo Beach	Malaga Cove	Bluff Cove
Summer & Fall	Other Accessible / Low Risk	Life Guarded / Low Risk	Accessible sandy / Low Risk	Life Guarded / Low Risk	Other Accessible / Low Risk	Life Guarded / Low Risk	Other Accessible / Med Risk	Other Accessible / Low Risk
	Monthly	Wkly or 5/Month	Wkly or 5/Month	Wkly or 5/Month	Monthly	Wkly or 5/Month	Wkly or 5/Month	Monthly
Winter & Spring	Other Accessible / Low Risk	Accessible sandy / Low Risk	Accessible sandy / Low Risk	Other Accessible / Low Risk	Other Accessible / Low Risk	Life Guarded / Low Risk	Other Accessible / Med Risk	Other Accessible / Low Risk
	Monthly	Wkly or 5/Month	Wkly or 5/Month	Wkly or 5/Month	Monthly	Wkly or 5/Month	Wkly or 5/Month	Monthly

Based upon daily monitoring at these sites, there has not been a violation of Ocean Plan bathing water standards in 19 years (since 1987). This record reinforces categorization of these sampling sites as low risk.



Besides meeting the requirements of the NPDES permit, the Districts make the shoreline microbiological data available to the Jurisdiction 7 cities subject to the Santa Monica Bay Bacteria Total Maximum Daily Load (TMDL). Under the TMDL, these cities are required to monitor shoreline sites along the Palos Verdes Peninsula on a weekly basis. By sharing these data, duplication of effort is avoided. (This data sharing arrangement is voluntary and should not commit the Districts to any of the provisions arising out of the TMDL.)

Requested Tentative Permit Revision:

The required sampling frequency in the Tentative Permit should be revised to reflect the historical record and conform with the applicable State Board guidance or a burden analysis should be done. To avoid the logistical complications of varying sampling frequencies and to assure that the data also serve the ancillary need of the Jurisdiction 7 cities, the Districts request that the sampling at all sites be revised in Table 6 on page 28 of Attachment E to be weekly.

Response: The Districts suggest that the monitoring frequency of five times per week is not consistent with the purpose of the microbiological monitoring or with the guidance for public health monitoring provided by the State Water Resource Control Board's Beach Water Quality Work Group and the Model Monitoring Program.

The Shoreline Microbiological Monitoring Program for Santa Monica Bay was developed prior to the Beach Water Quality Work Group and the Model Monitoring Program efforts. The shoreline monitoring stations along the Palos Verdes Peninsula identified in the Tentative Permit (S1-S7, SM and SB) are part of a larger program developed by interested stakeholders several years ago to provide for public health monitoring deemed necessary to satisfy the recommendations of the Santa Monica Bay Restoration Project (now known as the Santa Monica Bay Restoration Commission). At that time, the stakeholder group suggested frequent sampling at most of these stations (daily, or at least 5 times per week). Subsequent to the adoption of the Santa Monica Bay Beaches Bacteria TMDLs (dry weather and wet weather), the Shoreline Monitoring Program recently was reviewed and some changes were implemented, but no changes were proposed to the sampling frequency for the monitoring stations along the Palos Verdes Peninsula.

Modification: The sampling frequency in Table 6 (Shoreline Microbiological Monitoring Requirements) of the Tentative MRP has been changed to weekly. Please see modifications in response to the next comment.

Comment 2: *The Tentative Permit proposes bacterial indicators that are not useful in the context of the Nearshore/Offshore Water Quality Monitoring Program and the sampling design proposed is beyond that needed to confirm compliance of bacteriological Ocean Plan Standards in offshore waters.*

The Districts disagree with the utility and purpose of the high level of bacteriological monitoring proposed as part of the quarterly offshore water quality monitoring program (see Tables 11 and 12 on page 32 of Attachment E). In the Tentative Permit, all three bacteriological indicators (total coliform, fecal coliform and enterococcus) are proposed to be analyzed at four depths at 24 sites quarterly. This program, which has not been an element of JWPCP receiving water monitoring in the past, would require 1,152 bacteriological analyses per year. It would also present serious logistical implementation challenges to the Districts, because we currently do not have the capability to conduct bacteriological analyses on our research vessels while at sea. This capability would be required by the proposed bacteriological monitoring requirements in order to meet restrictions on the length of time a sample may be held before being processed.



The expressed purpose of the Nearshore/Offshore Water Quality Monitoring Program is to address the question: "Are Ocean Plan limits for dissolved oxygen (DO) and pH being met?" (Page 29 of Attachment E). Dissolved oxygen and pH profiles are already required in the Tentative Permit on a quarterly basis at 48 sites (Tables 9 and 10 on pages 30 and 31 of Attachment E). The Districts participate in the water quality survey cited in the Tentative Permit, the Central Region Cooperative Water Quality Survey, in coordination with three other POTWs. Bacterial sampling, typically limited to fecal coliforms, has been employed in the past by some of the participants in this survey as a means of identifying and tracking their diluted wastewater fields as they disperse. Ammonia sampling is also used effectively in this role. These tracers aid in the interpretation of other water column measurements directly related to the determination of compliance with Ocean Plan standards for DO and pH. Because the JWPCP disinfects its effluent prior to discharge, the Districts have relied solely on ammonia for tracking their diluted wastewater field. In the case of the White Point outfall system, bacteria will typically be undetectable even within the zone of initial dilution. This conclusion is based upon daily measurements at the White Point manifold of final effluent bacterial levels following disinfection. (These measurements are made for operational purposes only, but provide a direct measure of the bacterial indicator concentrations discharged from the outfalls.) Given the effectiveness of the JWPCP disinfection system and the actual rate of dilution that occurs at the outfalls and beyond as the wastewater field is transported on currents, bacteriological concentrations throughout the water column will be below detection of the analytical methods and useless as a wastewater tracer. Therefore, the Tentative Permit is requiring the Districts to perform 1,152 analyses a year that will yield no information relative to the discharges from JWPCP or the attainment of Ocean Plan pH and DO values. This is contrary to the requirements of Water Code sections 13225(c) and 13267(b), which both require a reasonable relationship between added burden of monitoring and the benefits to be obtained.

Despite the context for the proposed offshore bacterial measurements cited in the Tentative Permit (i.e., determination of compliance with Ocean Plan DO and pH standards), it became apparent at the meeting with Regional Board staff on February 22, 2006 (see agenda in Attachment A) that the staff intended to also use these measurements to confirm compliance with Ocean Plan water contact standards in offshore waters. As was discussed at that time, the scope of the proposed program is considerably beyond what is necessary for that purpose. Demonstration of compliance with water contact and shellfish standards is already required in the Microbiological Monitoring program at six inshore stations that are situated at the outer edge of the kelp beds as "...the area of potential water contact and shellfish harvesting most proximal to the point of discharge" (pg. E-27). This program has been in place in previous permits (since 1988). There have been no exceedances of Ocean Plan Standards for water contact or shellfish at the monitored inshore sites over the past 16 years. Unlike the outer edge of the kelp beds where some SCUBA diving occurs, the frequency of use of the much deeper water further offshore as water contact areas is very low. While recreational users are present in the offshore waters, they are primarily fishing rather than swimming and exposure to the water is incidental, not central, to the activity. Because JWPCP effluent is disinfected prior to discharge and is typically trapped well below the ocean surface, there is little likelihood that water contact standards are exceeded in these offshore waters. This risk of exceedance can be conservatively estimated by considering the results of the daily bacteriological monitoring at the manifold. As described above, these data provide a direct daily measurement of the quantities of bacterial indicators being discharged from the outfall system. When the intentionally very conservative minimum initial dilution of 166:1 is applied to the measured levels of total coliform and enterococcus in the disinfected effluent, calculated exceedances of Ocean Plan or AB411 standards rarely occur. For example, during all of 2004 and 2005, there was only one occasion when application of the initial dilution rate to measured effluent bacterial levels yielded a level that exceeded an AB411 standard (in this case, for enterococcus). Even this single hypothetical exceedance (out of 730 daily manifold measurements during the period) is calculated to occur at the edge of the zone of initial dilution and would not occur elsewhere in the water column. This record, of course, is dependent on a reliable disinfection system.



Disinfection at JWPCP is continuous and the disinfection station is fully redundant in tankage and controls and is monitored 24-hours per day by on-site treatment plant operators. The combination of very low water contact exposure and low potential for exceedance due to disinfection suggest that little if any monitoring offshore is justified.

Notwithstanding this record of compliance and the low risk of exceedance described above, the Regional Board may feel that direct measurement of bacterial indicators in offshore waters is necessary to confirm that Ocean Plan standards for water contact are met. In that event, the Districts suggest a sampling program focused on the surface waters at sites overlying the outfalls at which all three indicators (total coliform, fecal coliform, and enterococcus) would be measured monthly. Such a program could be more readily implemented by the Districts, because it could be done in conjunction with current sampling efforts.

Requested Tentative Permit Revision:

The Districts request that the requirement for bacteriological indicators be deleted from the monitoring requirements listed in Table 12, page E-32, and that ammonia continue to be used as a tracer as it has proven to be effective at identifying the JWPCP wastewater field after dispersion and transport.

Response: Regional Board staff agree with the Districts but believe that direct measurement of bacteria indicators in offshore waters is necessary to confirm the Ocean Plan standards for water contact are met. We accept the Districts' suggestion that implements a sampling program focused on the surface waters at sites overlying the main outfalls (Discharge Serial Nos. 001 and 002) at which all three indicators (total coliform, fecal coliform, and enterococcus) are measured monthly.

Modification: Section VI (Receiving Water Monitoring Requirements) of the Tentative MRP has been revised as follows: (Only portions with changes are indicated.) In addition, Figure 2 and Table 1 of the Tentative MRP have been updated to reflect newly proposed offshore microbiological monitoring stations (6c, 8c, and 9c), and the Table number will be updated accordingly.

VI. Receiving Water Monitoring Requirements

A. Shoreline/Inshore/Offshore Microbiological Monitoring

The inshore and offshore monitoring addresses the question: Are Ocean Plan compliance standards for bacteriological contamination being met? The data collected at inshore stations provide the means to determine whether bacteriological standards for water contact and shellfish harvesting are being met in the area of greatest potential water contact and shellfish harvesting most proximal to the point of discharge. The data collected at the offshore sites provides the means to determine whether bacteriological standards for water contact are being met in the area of around the discharge point. Data from both inshore and offshore compliance sampling sites are augmented by the frequent (typically daily) manifold bacterial monitoring collected for plant operational purposes and which provides effluent bacterial densities actually discharged through the outfall system.

1. Shoreline Monitoring

Table 6. Shoreline Microbiological Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency *
Total coliform ^[1]	CFU/100 ml (or MPN/100 ml)	Grab in wave wash zone	5 times per week (Tue-Sat) <u>weekly</u>



Parameter	Units	Sample Type	Minimum Sampling Frequency *
Fecal coliform ^[1, 3]	CFU/100 ml (or MPN/100 ml)	Grab in wave wash zone	5 times per week (Tue-Sat) weekly
Enterococcus ^[1]	CFU/100 ml (or MPN/100 ml)	Grab in wave wash zone	5 times per week (Tue-Sat) weekly
Visual observation ^[2]	--	--	5 times per week (Tue-Sat) weekly

* The Discharger has the option to select Tuesday instead of Monday as one of the off days.

3. Offshore Monitoring

The Discharger shall monitor the following three offshore stations located along the 200-foot (60-meter) depth contour (figure 2):

Table 9. Offshore Monitoring Stations

<u>Station Type</u>	<u>Monitoring Location Name</u>	<u>Monitoring Location Description</u>
<u>Offshore Station</u>	<u>R-M-6C</u>	<u>6C, 33° 42.47', 118° 21.24'</u>
<u>Offshore Station</u>	<u>R-M-8C</u>	<u>8C, 33° 41.91', 118° 20.14'</u>
<u>Offshore Station</u>	<u>R-M-9C</u>	<u>9C, 33° 41.32', 118° 19.10'</u>

as follows:

Table 10. Offshore Microbiological Monitoring Requirements

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Minimum Sampling Frequency</u>
<u>Total coliform ^[1]</u>	<u>CFU/100 ml</u> <u>(or MPN/100 ml)</u>	<u>Grab at 0.5 meters below the surface</u>	<u>monthly</u>
<u>Fecal coliform ^[1, 3]</u>	<u>CFU/100 ml</u> <u>(or MPN/100 ml)</u>	<u>Grab at 0.5 meters below the surface</u>	<u>monthly</u>
<u>Enterococcus ^[1]</u>	<u>CFU/100 ml</u> <u>(or MPN/100 ml)</u>	<u>Grab at 0.5 meters below the surface</u>	<u>monthly</u>
<u>Visual observation ^[2]</u>	--	--	<u>monthly</u>

Visual observations shall be recorded at the same time that bacteriological samples are collected.

B. Nearshore/Offshore Water Quality Monitoring

Table 12. Additional Monitoring Requirements at 24 Nearshore/Offshore Monitoring Stations

Parameter	Units	Sample Type	Minimum Sampling Frequency
Ammonia	µg/L	Grabs at 0, 15, 30 and 45 meters (or as	quarterly



Parameter	Units	Sample Type	Minimum Sampling Frequency
		deep as practical for stations in depths less than 45 m)	
Fecal coliform	CFU/100 ml (or MPN/100 ml)	Grabs at 0, 15, 30 and 45 meters (or as deep as practical for stations in depths less than 45 m)	quarterly
Total coliform	CFU/100 ml (or MPN/100 ml)	Grabs at 0, 15, 30 and 45 meters (or as deep as practical for stations in depths less than 45 m)	quarterly
Enterococcus	CFU/100 ml (or MPN/100 ml)	Grabs at 0, 15, 30 and 45 meters (or as deep as practical for stations in depths less than 45 m)	quarterly

Comment 3: Clarify that the purpose of shoreline monitoring is for public health, not compliance.

Table 6, *Shoreline Microbiological Monitoring Program Requirements* (pg. E-28), includes reference in three places to Footnote 1 in the Footnotes for *Receiving Water Monitoring Program* (pg. E-42). This footnote states that the samples are "... collected for the purpose of demonstrating compliance...". However, the MRP specifically states that the purpose of shoreline monitoring is to address the question, "Are densities of bacteria in the water contact zones below those that ensure public safety?" (pg. E-27) Language in the Tentative Permit should be altered to reflect the actual purpose of the shoreline monitoring.

Requested Tentative Permit Revision:

Delete the reference to Footnote 1 in Table 6, *Shoreline Microbiological Monitoring Program Requirements* (pg. E-28), or alter Footnote 1 (pg. E-42) to read as follows:

[1] In addition to reporting the actual concentration of bacterial organisms in each sample collected for the purpose of demonstrating compliance (where applicable), the geometric mean values shall also be determined and reported. The geometric mean values should be calculated using at least five most recent sample results. If sampling occurs more frequently than weekly, all samples during the previous 30-day period shall be used to calculate the geometric mean.

Response: Regional Board staff agree with the change.

Modification: Footnote [1] for Receiving Water Monitoring Program in the Tentative MRP has been revised as proposed above by the Districts.

J. Comments Regarding Local Seafood Safety Survey

Comment 1: The Bioaccumulation Monitoring Program should evaluate muscle tissue.

Table 23 (that begins on page 40 of Attachment E), the *Seafood Safety Monitoring Requirements*, does not identify the tissue that is to be analyzed. This element of the Bioaccumulation Monitoring Program is intended to implement the Santa Monica Bay Restoration Project (SMBRP) Seafood Tissue program. In accordance with the design of this program, the target tissue for seafood safety analysis should be muscle.



Requested Tentative Permit Revision:

Explicitly identify muscle as the tissue to be evaluated under the Seafood Safety Monitoring Program in Table 23 of Attachment E.

Response: Regional Board staff agree.

Modification: Identify **muscle** tissue as the tissue to be evaluated under the Seafood Monitoring Program in Table 23 (Seafood Safety Monitoring Requirements) of the Tentative MRP (Attachment E).

Comment 2: *Arsenic and selenium should not be included in the Bioaccumulation Monitoring Program.*

The Districts disagree with the inclusion of arsenic and selenium as analytes for the Local Seafood Safety Program in Table 23 of Attachment E. As this element of the Bioaccumulation Monitoring Program is intended to implement the SMBRP Seafood Tissue program, the "...program should focus on only those chemicals in finfish muscle tissue that contribute the most to health risk."¹⁰ (italics as in original). This SMBRP survey design document goes on to stipulate that the program focus on DDTs, PCBs, and mercury, and concludes that "Additional contaminants may be added if and when evidence warrants" (emphasis added). As there is currently no evidence that selenium or arsenic are contaminants of concern in local seafood, the expansion of the analyte list is unwarranted under the SMBRP sampling design. In addition, the Montrose Settlements Restoration Program (MSRP)¹¹ conducted an extensive review of fish contaminant data in developing their 2002 Fish Survey analyte list. Existing data on the frequency of occurrence and risk of selenium and arsenic were included in that review. They concluded that there was no evidence that selenium was of concern in the Southern California Bight and that there was not sufficient risk associated with documented arsenic levels to include it in their primary analyte list. Furthermore, based on historical monitoring data, no reasonable potential exists in the JWPCP effluent for these two constituents. Therefore, the analytes for the Local Seafood Safety Survey should be restricted to those recommended in the SMBRP Seafood Safety design: DDTs, PCBs and mercury.

Requested Tentative Permit Revision:

Restrict the analytes for the Local Seafood Safety Survey (listed in Table 23 of Attachment E) to those recommended in the SMBRP Seafood Safety design: DDTs, PCBs, and mercury.

Response: Regional Board staff agree that there is no evidence that selenium is of concern in the Southern California Bight, so that parameter will be deleted from the list of analytes. However, even though arsenic levels do not pose a large human health risk at this point, it is a potential pollutant of concern. We need to continue to gather monitoring data that would allow a human health risk assessment to be performed in the future to continue to document that arsenic is not causing a problem. Thus, arsenic will be retained on the list of analytes.

Modification: Delete selenium from the list of analytes for the Local Seafood Safety Survey in Table 23 of the Tentative MRP (Attachment E).

Comment 3: *Consideration of relief from targeted fish collecting efforts should apply to all bioaccumulation sampling techniques.*

¹⁰ SMBRP. 2000. Development of Comprehensive Monitoring Program. Chapter 4. Program Summary: Seafood Safety. Section 4.7.2.3. Targeted Contaminants. Pg 66.

¹¹ Industrial Economics & CH2M Hill. 2002. Montrose Settlements Restoration Program: Fish Sampling Plan. 65 pages.
<http://www.darp.noaa.gov/southwest/montrose/pdf/mon-dg2002b.PDF>



Footnote 10 in the Footnotes for Receiving Water Monitoring Program (pg. E-43) assumes that any fish collected during the course of the Bioaccumulation Program will be collected by means of trawl gear. This is incorrect. Of the six target species stipulated, trawl gear is expected to be the primary sampling means for only hornyhead turbot and white croaker. All other species are most likely to be collected by other means (e.g., hook and line, spear, trap, etc). Because trawling is a non-selective collecting technique, the Districts agree that the effort should be constrained when there is a likelihood that the target species are not present. For species collected by other means, the techniques are more selective and considerable sampling effort may be made without concern for effects on other species. However, there is a possibility that, on occasion, it may prove very difficult or impossible to meet the sampling goals. The language of Footnote 10 on page E-43 needs to be revised to reflect this possibility.

Requested Tentative Permit Revision:

Revise the language of Footnote 10 on page E-43 to read as follows:

[10] Individuals collected for local bioaccumulation trends survey or local seafood safety survey shall be collected during a single season each year to minimize the variability in reproductive state. It may be impossible to collect the required number of fish every year at each zone. For species collected by trawl, if fish of the target size are absent in a given zone, additional trawls need not be attempted. If target fish are present in a given zone, one additional trawl shall be conducted to attempt to collect the necessary number of individuals. For collection efforts using gear other than trawls, the discharger may fail to achieve the sampling goals because of local absence of a target species. In that case, upon request of the discharger, the Executive Officer may approve temporary relief from requirement to collect that species for the survey year. The request for relief must be submitted to the Executive Officer and be accompanied by documented evidence of the sampling effort expended.

Response: Regional Board staff agree with the Districts.

Modification: Footnote [10] for Receiving Water Monitoring Program in the Tentative MRP (Attachment E) has been revised as proposed by the Districts above.

K. Comment Regarding Approval and Implementation of Special Studies

Comment: *Approval for special studies should be made by the Executive Officer of the Regional Board.*

The Model Monitoring Program framework introduces the concept of special studies as a component of POTW receiving water monitoring (pg. E-4). These studies are intended to be the adaptive component of the program, and the adaptive aspect of special studies is central to their utility. The Model Monitoring Program guidance envisions that the questions the special studies address arise naturally from the findings of other components (i.e., local or regional) of the monitoring program. The tentative permit correctly recognizes the adaptive nature of these studies, stating that they are "...by nature ad hoc and cannot be... anticipated in advance of the five-year permit cycle." However, as written, Section I.D.3 requires the Districts to obtain approval from the Regional Board, at a Spring Regional Water Board Meeting, and USEPA prior to implementation of any studies. This approval process is an unnecessarily burdensome constraint on the special studies program that could only delay implementation of special studies. Proposals for scope of work can more efficiently and appropriately be approved by the Executive Officer of the Regional Board.



Requested Tentative Permit Revision:

Revise language in Section I.D.3 on page E-4 to allow authorization for the required special studies to be made by the Executive Officer of the Regional Board.

Response: Regional Board staff disagree with the Districts. The approval process through the public hearing will encourage the public participation and inform the public of the proposed studies. We do not believe that it will delay implementation of special studies. However, we have removed the requirement of USEPA approval from the Tentative Permit.

Modification: Section I.D.3 of the revised MRP has been revised as follows:

3. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

The Discharger, and the Regional Water Board ~~and USEPA~~ shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for any proposed special studies (For example, endocrine disruptors and their effect on fish populations) to the Regional Water Board ~~and USEPA~~ by December 15, for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a Spring Regional Water Board meeting, to obtain the Regional Water Board ~~and USEPA~~ approval and to inform the public. Upon approval by the Regional Water Board ~~and USEPA~~, the Discharger shall implement its special study or studies.

L. Comment Regarding PCB Analyses

Comment: *Measuring PCBs as both Aroclors and congeners is duplicative and unnecessary.*

The Districts disagree with the forms in which PCBs are required to be analyzed for the various sample types in the MRP. Under the Tentative Permit, PCB analysis is required in influent, effluent, and receiving water samples (sediment and tissues). In all but influent, both PCB Aroclors (to be summed as Total PCBs) and individual PCB congeners are required analytes in the Tentative MRP. This requirement fails to recognize that the selection of the appropriate form in which to measure PCBs is dependent on the use to which the data will be put. To measure both Aroclors and congeners regardless of sample type or data use is inefficient and imposes an analytical burden as the methods are different. Therefore, measurement of both Aroclors and congeners involves a duplication in analytical effort and costs and would be contrary to the requirements of Water Code sections 13225(c) and 13267(b)..

Aroclors are commercial mixtures of PCB congeners and the forms in which PCBs were distributed and used by industry. Individual congeners appeared as constituents of several different Aroclor mixtures, making the determination of total PCBs from summing Aroclors subject to substantial error. As discussed below, the blending of Aroclor mixtures in effluents and the environment, and the chemical degradation and transformation of the mixtures once in the environment, further compounds the difficulty of using Aroclors as a measure of PCBs. The practice of reporting PCBs as Aroclors in these matrices in the past was a compromise driven by analytical technology and the formerly high



cost of congener standards in comparison to the readily available Aroclor standards, not actual suitability to the task of accurate quantification of PCBs in the environment.

For effluent monitoring, the appropriate analytical approach is Aroclor-pattern matching, as Table B of the California Ocean Plan expresses the WQ limit in the form of Aroclors. While this is a historical artifact, reflecting the chromatographic technology existing at the time of the development of water quality objectives, it is the existing standard against which effluents are judged. In addition to this analysis, Regional Board staff assert that congeners should also be measured in the effluent "to facilitate interpretation of sediment/fish tissue data and TMDL development..."(Footnote 10, pg. E-17). This is based upon the false premise that PCBs are being discharged in the effluent and, therefore, have some relevance to what is seen in the environment. It has been 21 years since the last detection of PCBs in JWPCP influent, and effluent concentrations are expected to be even lower. In addition, the manufacture and use of PCBs has been banned in the United States for 28 years and there is no expectation that influent concentrations will increase in the future. Since PCBs are absent in the influent and effluent, it does not matter in what form it is measured. PCB sources relevant to our receiving water (sediments and tissues) and to TMDLs are in-place legacy sediments and airborne deposition (direct or indirect through runoff). In this context, there is no interpretive value provided by non-detects of effluent PCBs in alternate forms (i.e., both Aroclors and congeners). The Districts request that effluent monitoring of PCBs be restricted to Aroclors, the form specified in Table B of the Ocean Plan.

The Districts endorse the use of congener analysis for receiving water samples (sediment and tissue) and agree that the 41 specific congeners listed in the MRP are the ecologically relevant analytes. This list of 41 congeners was developed by the PCB Technical Committee of the Southern California Bight Regional Monitoring Program in 1997 for use in subsequent regional surveys of receiving water conditions. The 41 selected congeners are those with the greatest potential toxicity and/or greatest representation in the most widely used Aroclor mixtures (1242, 1248, 1254, and 1260). However, the Districts disagree with the additional requirement that Total PCBs be assessed in sediments and tissues by the summing of Aroclors. The Districts' opinion is based upon the widespread recognition among environmental chemists that little if any PCB in environmental samples is in the form of Aroclors due to biological and chemical weathering and, hence, their quantification in this form is subject to substantial error. For instance, in its April 20, 1997 report¹² to the Bight Regional Steering Committee, the PCB Technical Committee was very critical of the method of quantifying PCB concentrations using Aroclor-pattern matching as historically practiced in chemistry laboratories involved in ocean monitoring in southern California. They found that this method yields large errors since the patterns of PCBs in the field sample deviates greatly from that in any of the Aroclor standards. The utility of Aroclor measurements is limited to detecting presence/absence of PCBs, rough estimates of distribution, tracking recent disposal of PCBs. Only for the last of these uses does Aroclors provide an advantage and addresses a question that is not relevant to the JWPCP receiving water environment. They note that the "PCB pattern mismatch is especially severe in biological tissues due to high degree of selective uptake, metabolism or biodegradation." Among the Technical Committees other findings were: (1) "...as environmental changes render the Aroclor patterns, some data uses (other than those above) may be scientifically meaningless" (italicized text inserted) (2) "because toxic potency can be dominated by relatively few congeners, total Aroclor estimates hold little relevance for risk evaluation"; and (3) "any effort to understand mechanisms of transport or degradation in environmental settings can not rely on Aroclor estimates". They concluded that "congener-specific quantification ... yields more precise total PCB concentrations." The subsequent regional surveys in the Bight have assessed total PCBs by congener analysis. In addition, the Montrose Settlements Restoration Program 2002 fish tissue survey, the most comprehensive survey

¹² PCB Tech Comm. April 20 1997. 1997 Study Proposal. Presented to The Steering Committee of the Southern California Bight Pilot Project. SCCWRP. 9 Pgs.



of chlorinated hydrocarbon contamination in coastal fish undertaken in the Bight, employed the same approach to PCB assessment, adopting the PCB Technical Committee list of 41 congeners, rather than Aroclors as analytes. The Districts have also sought the opinion of the OEHHA Fish and Water Quality Evaluation Unit regarding the appropriate form in which to measure PCBs in fish tissues and were advised that congeners are the most relevant and accurate analytes to represent PCBs (R. Brodberg, OEHHA, pers. com, May 2005.) Therefore, because using the sum of congeners provides the most ecologically relevant measure of total PCBs in the Palos Verdes sediment and tissue monitoring program and allows the local levels to be placed in the context of the ongoing regional efforts, the Districts recommend that total PCBs in the receiving water be assessed by sum of congeners, not Aroclors.

Requested Tentative Permit Revisions:

Revise effluent monitoring requirements for PCBs to require only testing for PCB Aroclors, not congeners. In addition, revise receiving water (sediment and tissue) monitoring requirements to require only testing for PCB congeners, not Aroclors. To implement these changes, the following changes should be made:

The definition of PCBs in Attachment A (pg. A-6) should be changed to read as follows:

PCBs (polychlorinated biphenyls) in influents and effluents shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclors-1232, Aroclors 1248, Aroclor 1254 and Aroclor-1260. In receiving water samples (e.g., sediment and tissue) PCBs shall mean PCB congeners whose analytical characteristics resemble, at a minimum, those of PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206, individually quantified and summed as total PCBs.

PCB congeners should be deleted from Table 3 (pg. E13).

Footnote 10 should be deleted from the Footnotes for influent and effluent Monitoring Program (pg. E-17)

Footnote 7 in the Footnotes for Receiving Water Monitoring Program (pg. E-43) should be changed to read as follows:

[7] Total PCB (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1248, Aroclor-1254, and Aroclor-1260. PCB congeners whose analytical characteristics resemble, at a minimum, those of PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

Response: As the Districts noted, Aroclors are commercial mixtures of PCB congeners and the forms in which PCBs were distributed and used by industry. Also, the Ocean Plan defines total PCBs as the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260. Consequently, effluent sampling that measures PCBs as Aroclors is necessary to determine compliance with the effluent limitation in the permit. Since we have historical measurements of Aroclor concentrations in sediments and fish tissues, it is desirable to continue to measure PCBs as Aroclors in receiving water samples to allow comparisons to this historical data.



Improvements in laboratory analytical methods have allowed individual PCB congeners to be measured. The Districts agree that the congener method should be used for receiving water samples, but do not feel that congeners should be measured in the effluent, since the values typically will be below the detection limit. While this has been true in the past, it is possible that detection limits will drop as laboratory methods continue to evolve.

Therefore, we will retain the requirement to monitor PCBs as both Aroclors and congeners. Since the overlapping analyses only occur on an annual monitoring basis, this requirement is not particularly burdensome and there is a good chance that the information provided will assist in the interpretation of the data gathered.

Modification: There is no change warranted in response to the comment.

M. Comment Regarding Joint Liability for Receiving Water Violations

Comment: Remove language regarding joint liability for receiving water violations.

On page 23 of the Tentative Permit, Section V Receiving Water Limitations states that:

"Unless specifically excepted by this Order, the discharge, by itself or jointly with any other discharge(s), shall not cause violation of the following water quality objectives. Compliance with these objectives shall be determined by samples collected at stations representative of the area within the waste field where initial dilution is completed."

The Districts are unaware of any legal authority under state or federal law that imposes joint and several liability for unrelated wastewater dischargers, and ask that the Regional Board identify where the authority for this requirement in Section V of the Tentative Permit can be found. This concern is highlighted by the fact that the Regional Board is responsible for issuing individual control mechanisms (e.g., permits) to dischargers to independently meet water quality standards with the intention that this integrated program will insure overall protection of water quality. Moreover, an individual discharger does not have the authority or the ability to control another discharger, and hence it is not clear how this requirement could even be effectuated by the Districts if another discharger violated a water quality objective.

Furthermore, in the tentative permit under special provision C(1)(i) it states: "[t]he waste discharged shall not cause a violation of any applicable water quality standard for receiving waters." This requirement by itself is more than sufficient to ensure that receiving waters are protected and water quality objectives are attained.

Requested Tentative Permit Revision:

Revise Section V Receiving Water Limitations as indicated below.

Section V Receiving Water Limitations

Unless specifically excepted by this Order, the discharge, ~~by itself or jointly with any other discharge(s)~~, shall not cause violation of the following water quality objectives. Compliance with these objectives shall be determined by samples collected at stations representative of the area within the waste field where initial dilution is completed.

Response: Regional Board staff agree with the Districts and remove the phrase "by itself or jointly with any other discharge(s)".



Modification: The first paragraph, Section V. (Receiving Water Limitations) of the Tentative Order has been modified as follows:

"Unless specifically excepted by this Order, the discharge, ~~by itself or jointly with any other discharge(s)~~, shall not cause violation of the following water quality objectives. Compliance with these objectives shall be determined by samples collected at stations representative of the area within the waste field where initial dilution is completed."

N. Comment Regarding Stringency of the Effluent Limitations

Comment: *The Regional Board must consider Water Code Section 13241 factors, including economics, when effluent limitations are more stringent than those required under federal law.*

Finding II.N on page 9 of the Tentative Permit and Section III.C.5 on page F-13 of the Fact Sheet state that:

"Stringency of Requirements for Individual Pollutants. *This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD), total suspended solids (TSS), and hydrogen ion concentration (pH). Restrictions on BOD, TSS and pH are specified in federal regulations as discussed in Finding F, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and water quality objectives contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA."*

The Districts disagree with this finding inasmuch as the Tentative Permit includes a number of requirements that are more stringent than CWA technology-based and water quality-based requirements. For example, the Tentative Permit contains numeric effluent limitations, daily limits, and mass limits, which are not required by federal law.¹³ The permit contains mass emission effluent limitations based on the JWPCP's 1997 design flow rather than the current design flow. This application is based on anti-backsliding requirements; however, the permit does not recognize the exceptions to the general rule against backsliding, which allows for less stringent limits under federal law.¹⁴ The Tentative Permit also contains technology-based effluent limitations more stringent than federal requirements. The effluent limitations are based on Table A in the Ocean Plan, which includes limitations for oil and grease, settleable solids, and turbidity. Limitations for these three parameters are not included in the federal secondary treatment standards, and thus are more stringent than

¹³ See e.g., 40 C.F.R. Section 122.44(d) and (k)(3) and Sections 122.45(d)(2) and (f)(1); see also *Communities for a Better Environment v. State Water Resources Control Board* (2003) 109 Cal.App.4th 1089, reh. den., 2003 Cal.App. LEXIS 1082 (1st. Dist. June 27, 2003), cert. den., 2003 Cal. LEXIS 7251 (Sept. 24, 2003).

¹⁴ CWA Section 402(o) and Section 303(d)(4), and 33 U.S.C. Sections 1342(o)(2) and 133(d)(4).



required by federal law.¹⁵ In addition, the Tentative Permit contains effluent limitations for radioactivity based on drinking water standards, even though ocean waters are not designated as sources of municipal drinking water supply, rather than the requirements for radioactivity in the Ocean Plan. The Regional Board should evaluate if any other limitations fall into this category.

In April 2005, the California Supreme Court made an important ruling with regard to whether a regional board is required to take the reasonableness factors contained in Water Code section 13241 into account when issuing effluent limitations. The Court ruled that, when a regional board proposes pollutant restrictions in a wastewater discharge permit more stringent than federal law requires, California law requires the regional board to take into account the factors set forth in Water Code Section 13263, including the incorporated factors in Section 13241 and economic factors (i.e., the wastewater discharger's cost of compliance).¹⁶

Consequently, since the Tentative Permit contains effluent limitations that are more stringent than federal law, the Regional Board is required to conduct an analysis of these limits under Water Code Section 13263, including the factors contained in Section 13241. In addition, the Regional Board must revise Permit Finding II.N and Fact Sheet Section III.C.5 to reflect that the permit contains restrictions that are more stringent than required by the federal CWA, and to include the results of the Regional Board's analysis related to Water Code Sections 13263 and 13241.

Requested Tentative Permit Revision:

Conduct an analysis of effluent limits that are more stringent than required by federal law, per Water Code Section 13263, including the factors contained in Section 13241. In addition, revise Permit Finding II.N and Fact Sheet Section III.C.5 to reflect that the permit contains restrictions that are more stringent than required by the federal CWA, and to include the results of the Regional Board's analysis related to Water Code Sections 13263 and 13241.

Response: Regional Board staff disagree with the Districts. The reasons have been discussed in detail below.

Water Code Section 13241 is located under Article 3, Regional Water Quality Control Plans. It requires that regional boards consider certain factors at the time that water quality objectives (WQO) are established in water quality control plans, also referred to as Basin Plans. Elements of Water Code Section 13241 are considered at the time that a new WQO is adopted into the Basin Plan. That information becomes part of the administrative record prepared for each particular Basin Plan amendment. Furthermore, prior to the adoption of the Ocean Plan, the State Board prepared a Final Functional Equivalent Document (FFED) and completed an environmental checklist, pursuant to Section 3777(a), Title 23, CCR. The environmental checklist evaluated potential environmental effects, including Section 13241 factors, that could have resulted from the implementation of the proposed Ocean Plan amendments. It was concluded that the proposed project would not have a significant effect on the environment. Both the FFED and the Environmental Checklist are posted on the State Board's website and are available for review.

With respect to your reference to City of Burbank v. State Water Resources Control Board., 35 Cal.4th 613, 628(April 4,2005), that case is still pending. It was remanded back for further proceedings. The Court of Appeal was directed to remand the matter to the trial court to decide whether any numeric limitations, as described in the permits, are more stringent than required under federal law. The next hearing is scheduled for mid-April 2006. The actual language from the Supreme Court is as follows:

¹⁵ 40 C.F.R. Section 133.102. These regulations describe the minimum level of effluent quality attainable by secondary treatment in terms of the parameters—BOD₅, suspended solids, and pH.

¹⁶ City of Burbank v. State Water Resources Control Board., 35 Cal.4th 613, 628 (April 4, 2005).



"...When, however, a regional board is considering whether to make the pollutant restrictions in a wastewater discharge permit *more stringent* than federal law requires, California law allows the board to take into account economic factors, including the wastewater discharger's cost of compliance." Note that it read that California law allows the board to take into account economic factors, not that California law requires it.

Pursuant to 40 CFR, Section 122.45(d)(2), for POTWs continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. It is impracticable to only include average weekly and average monthly effluent limitations in the permits, because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of certain pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, maximum daily effluent limitations, as referenced in 40 CFR, Section 122.45(d)(1), are included in the permit for certain constituents.

With respect to the mass emission limitations that are based on the 1997 design flow, a reopener has been added in the revised Tentative Permit that will allow recalculations of the mass emission limitations after the Districts conduct an antidegradation analysis to show that no adverse impacts would result from the increased flow rate.

Regional Board staff disagree with the Districts' assertion that the Tentative Permit contains Technology-based effluent limitations that are more stringent than federal requirements. A clear distinction needs to be drawn between the USEPA's "secondary treatment" technology-based limits and the level of treatment achievable by given technologies. Secondary treatment technology-based limits, specified in 40 CFR 133, were developed by USEPA in the 1970's to identify the minimum level of effluent quality to be attained by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH. Section 301 of the CWA established a required performance level that all POTWs were required to meet by July 1, 1977. Considerable technological advances have been made in many fields over the last thirty years. It is illogical to compare modern facilities with archaic systems. The Regional Board did not specify to County Sanitation Districts which treatment system technology they needed to install at the Joint Plant. CSDLAC designed, constructed, and installed facilities to their choosing. Limits imposed by the Regional Board, which may be more stringent than the minimum secondary-treatment requirements, are based on what the plant has proven capable of achieving in the past. Since the plant has been upgraded, it is not expected that the level of treatment will degrade. Since the limits are based on the performance of existing technology, the Discharger will not need to incur capital improvement expenditures. The technology-based limits are economically achievable. They have been met by the Joint Plant and by other POTWs in California. Relaxation of effluent limits would not be possible because none of the Antidegradation exceptions apply and because doing so would be contrary to the Antidegradation Policy.

Modification: There is no change warranted in response to this comment.

O. Comment Regarding Liability for Violations of Monthly and Weekly Effluent Limitations

Comment: *Language related to liability for violations of monthly and weekly effluent limitations needs to be removed or changed.*

The Regional Board has included language in Section III of the Tentative Permit related to compliance with average monthly effluent limitations (Section III.C on page 36) and compliance with average



weekly limitations (Section III.D on page 37). Section III.C Average Monthly Effluent Limitation (AMEL) states that:

"If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month."

Section III.D Average Weekly Effluent Limitation states that:

"If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week."

USEPA Region IX has commented to at least one regional water board that it is inappropriate to include blanket statements within permits that attempt to predetermine violations of the Clean Water Act or the NPDES permit.¹⁷ The compliance determination language proposed improperly prejudices where an exceedance equates to permit non-compliance and predetermines how many days of non-compliance will be found. This prejudgment ignores potential defenses to permit exceedances and is legally improper particularly when the Mandatory Minimum Penalties (MMP) program does not find every exceedance to be a "violation" and does not find 31 or seven "violations" from 31 or seven days of exceedances, but merely one violation.¹⁸ Further, the date of the sample generally only indicates a violation on the date of the data collection and other evidence is required to demonstrate that violations occurred on more than one day.¹⁹

Specifically, the Districts believe that the use of the phrase "will be considered out of compliance" (specifically the word "will") for an "alleged" violation prejudices whether a violation has occurred or not since there may be an affirmative defense for the exceedance. The Districts believe the word "may" is a better choice since it indicates that enforcement discretion exists. We also believe that other changes may be appropriate for the language to be consistent with the State Board's Enforcement Policy.

Inasmuch as these sections of the Tentative Permit deal with compliance determination procedures for non-daily limits, the Districts believe that, if not removed entirely, the proposed language should be revised to explicitly distinguish between procedures for discretionary and mandatory penalties in

¹⁷ See letter from EPA commenting on Tentative Order No. R9-2005-0136 and R9-2005-0137 (Aug. 3, 2005).

¹⁸ Water Code Section 13385(i); State Water Resources Control Board, *Water Quality Enforcement Policy* at 22 (Feb. 19, 2002); SWRCB SB709 Questions & Answers Document at p. 15, Q.39 (April 17, 2001)(if "the discharger has violated a monthly average effluent limitation, the Regional Board should consider that one violation.").

¹⁹ SWRCB SB709 Questions & Answers Document at p. 13, Q.35 (April 17, 2001).



accordance with state and federal law. If the Regional Board chooses to assess discretionary administrative civil liability for violations of a monthly average it must determine whether an exceedance of a violation of a monthly average represents thirty days of violations for a 30-day month in order to be consistent with the Clean Water Act and whether mitigations factors should apply.^{20,21} For purposes of complying with the mandatory penalty provisions in the Water Code, if based on one or more monitoring data points in a month the Regional Board determines that the discharger has violated a monthly average effluent limitation, then the Regional Board should consider that to be only one violation.²² The same approach would apply for a violation of an average weekly limitation.^{23,24} Because these are policy considerations, and not regulatory requirements, this language should not be included in a discharge permit.

Requested Tentative Permit Revisions:

Remove the compliance determination language, or at least make the language changes listed below to Sections III.C and III.D of the Tentative Permit.

Section III.C

~~If the~~ The average of daily discharges over a calendar month will be reviewed to determine whether the result exceeds the AMEL for a given parameter. If exceeded, an alleged violation will be flagged and the Regional Board will consider appropriate informal or formal enforcement actions in accordance with the State Water Resources Control Board's Water Quality Enforcement Policy. If the Regional Board chooses to assess discretionary administrative civil liability for violations of an AMEL, the discharger will ~~may~~ be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For purposes of complying with the mandatory penalty provisions in the Water Code, if the Regional Board determines that the discharger has violated an AMEL based on one or more monitoring data points in a month, the Regional Board will consider that one violation. In addition, under the Water Code, a single operational upset in a wastewater treatment unit that treats wastewater using a biological treatment process shall be treated as a single violation, even if the operational upset results in violations of more than one effluent limitation and the violations continue for a period of more than one day. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

Section III.D

~~If the~~ The average of daily discharges over a calendar week will be reviewed to determine whether the result exceeds the AWEL for a given parameter. If exceeded, an alleged violation will be flagged and the Regional Board will consider appropriate informal or formal enforcement actions in accordance with the State Water Resources Control Board's Water Quality Enforcement Policy. If the Regional Board chooses to assess discretionary administrative civil liability for violations of an AWEL, the discharger will ~~may~~ be considered out of compliance for

²⁰ SB 709 AND SB 2165 QUESTIONS AND ANSWERS, April 17, 2001, State Water Resources Control Board; Water Code Section 13385(e); 33 U.S.C. 1319(d).

²¹ As written under the Tentative Permit, a single violation of a monthly average limit at \$32,500 per day, multiplied by 31 days would be over a million dollars (\$1,007,500); Tyson Foods, 897 F.2d at 1139. Also see, Gwaltney, 897 F. 2d at 314.

²² SB 709 AND SB 2165 QUESTIONS AND ANSWERS, April 17, 2001, State Water Resources Control Board.

²³ As written under the Tentative Permit, a single violation of weekly average limit at \$32,500 per day, multiplied by 7 days would be \$227,500; Tyson Foods, 897 F.2d at 1139. Also see, Gwaltney, 897 F. 2d at 314.

²⁴ SB 709 AND SB 2165 QUESTIONS AND ANSWERS, April 17, 2001, State Water Resources Control Board.



each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For purposes of complying with the mandatory penalty provisions in the Water Code, if the Regional Board determines that the discharger has violated an AWEL based on one or more monitoring data points in a week, the Regional Board will consider that one violation. In addition, under the Water Code, a single operational upset in a wastewater treatment unit that treats wastewater using a biological treatment process shall be treated as a single violation, even if the operational upset results in violations of more than one effluent limitation and the violations continue for a period of more than one day. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

Response: There is an error in the numbering system for the Tentative Order. The referred section in the comment should be section VII (Compliance Determination). Regional Board staff in the Enforcement Unit are aware of the issues raised by the Districts in this comment. In addition, the compliance determination regarding the single operation upset has been included in the Tentative Order (Section VII.O). Since this is the language used in the new proposed permit template, we will not make any changes. However, we will add some clarification language in the AWEL.

Modification: There is no change to Section VII.C. (Average Monthly Effluent Limitations). However, the following language will be added to Section VII.D. (Average Weekly Effluent Limitation).

VII. COMPLIANCE DETERMINATION

D. Average Weekly Effluent Limitation (AWEL)

A calendar week will begin on Sunday and end on Saturday. Partial weeks consisting of four or more days at the end of any month will include the remaining days of the week, which occur in the following month in order to calculate a consecutive seven-day average. This value will be reported as a weekly average or seven-day average on the SMR for the month containing the partial week of four or more days. Partial calendar weeks consisting of less than four days at the end of any month will be carried forward to the succeeding month and reported as a weekly average or a seven-day average for the calendar week that ends with the first Saturday of that month.

P. Comment Regarding the Applicability of the Sources of Drinking Water Policy

Comment: Resolution No. 88-63 does not apply to discharges from JWPCP.

Finding II.H on page 7 of the Tentative Permit states that:

“Water Quality Control Plans. *The Regional Water Board adopted a revised Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assigns the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to the*



Pacific Ocean (Point Vicente Beach, Royal Palms Beach, and Whites Point Beach) in the Palos Verdes Peninsula are as follows:

Resolution No. 88-63 is the Sources of Drinking Water Policy that applies to water bodies with beneficial uses designated as suitable, or potentially suitable, for municipal or domestic water supply (MUN). Since this discharge is to ocean waters this reference is inapplicable and the Districts request that it be struck from the Tentative Permit.

Requested Tentative Permit Revision:

Revise Finding II.H on page 7 of Tentative Permit to read as indicated below.

“Water Quality Control Plans. *The Regional Water Board adopted a revised Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (hereinafter Basin Plan) on June 13, 1994, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assigns the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to the Pacific Ocean (Point Vicente Beach, Royal Palms Beach, and Whites Point Beach) in the Palos Verdes Peninsula are as follows:*

Response: This is a Finding that is standard language in all NPDES permits, and the “Sources of Drinking Water” Policy is a commonly-referred to Policy and reference. While Resolution No. 88-63 may not specifically apply at this time to the JWPCP discharge because the Basin Plan does not list the receiving waters of the Pacific Ocean as a “potential” source of drinking water, it should be noted that, with the latest desalination technology, seawater can be readily converted to drinking water, and as such, may be a future source of drinking water.

Modification: There is no change warranted in response to this comment.

Q. Comment Regarding Antidegradation Analysis for Permit Re-issuance

Comment: *Language regarding use of mass emission benchmarks to perform antidegradation analyses should be amended.*

Permit Finding II.T on pages 10 and 11 of the Tentative Permit and Section IV.G on page F-28 and F-29 of the Fact Sheet state that:

“Mass Emission Benchmarks. *To address the uncertainty due to potential increases in toxic pollutant loadings from the JWPCP discharge to the marine environment during the five-year permit term, and to establish a framework for evaluating the need for an antidegradation analysis to determine compliance with State and federal antidegradation requirements at the time of permit reissuance, 12-month average mass emission benchmarks have been established for effluent discharged through Discharge Serial Nos. 001 and 002 (see MRP – Attachment E). These mass emission benchmarks are not enforceable water quality based effluent limitations. They may be re-evaluated and revised during the five-year permit term. The methodology for calculating mass emission benchmarks is described in the Fact Sheet (Attachment F).”*

The Districts are concerned that the language in the first sentence related to “uncertainty due to potential increases in toxic pollutant loadings from the JWPCP discharge to the marine environment during the five-year permit term” may contradict findings made in the permit that the discharge is in



fact consistent with federal and state antidegradation requirements.²⁵ In addition, while this information may be useful to the Regional Board in some manner at the time the next permit is issued for the JWPCP, it is debatable if this information establishes “a framework” for conducting a prospective antidegradation analysis. That language implies that a methodology for antidegradation analysis is being established rather than simply collecting information on plant performance, similar to the rationale used to establish performance goals in the Tentative Permit²⁶

Moreover, the utility of the information to be collected as part of this proposed permit program deserves further scrutiny since mass emission data are intrinsically variable. Table 5 in the “Characteristics of effluents from large municipal treatment facilities between 1998 and 2000,” an article contained in the Southern California Water Research Project Biennial Report 2001-2002 provides mass emission data from four large southern California POTWs (Hyperion Treatment Plant, JWPCP, Orange County Sanitation Districts’ Treatment Plant #2, and Point Loma Wastewater Treatment Plant). The data show statistically minor variations in mass emission loads at these POTWs over a period of years. For example, copper has varied slightly over the past 13 years. In 1991, the combined POTW copper load was 47 metric tons (mt), but fluctuated from 49 mt in 1996, to 59 mt in 1997, 55 mt in 1998, 46 mt in 1999 and 51 mt in 2000. If a party had reviewed these data in 1998, one might have concluded that potentially some degradation had occurred in the previous years since the mass loadings seemed to be increasing. However, reviewing the data from subsequent years shows a drop in copper loadings. This condition illustrates the need to recognize the statistical variability of discharge data, which must be considered when assessing whether a discharger maintains its treatment level and effluent quality. Accordingly, the Districts request that language regarding Permit Finding II.T and Section IV.G of the Fact Sheet be changed.

Requested Tentative Permit Revision:

Revise language in Permit Finding II.T and Section IV.G of the Fact Sheet as indicated below.

“Mass Emission Benchmarks. To address ~~the uncertainty due to potential increases~~ relative changes in toxic pollutant loadings from the JWPCP discharge to the marine environment during the five-year permit term, and to ~~collect information that could be used~~ establish a framework for evaluating the need for an antidegradation analysis to determine compliance with State and federal antidegradation requirements ~~when a subsequent at the time of permit is re-issued to the JWPCP reissuance~~, 12-month average mass emission benchmarks have been established for effluent discharged through Discharge Serial Nos. 001 and 002 (see MRP – Attachment E). These mass emission benchmarks are not enforceable water quality based effluent limitations. They may be re-evaluated and revised during the five-year permit term. The methodology for calculating mass emission benchmarks is described in the Fact Sheet (Attachment F).”

Response: Regional Board staff agree with the changes. However, we will change “...collect information that could be used..” to “...collect information that **can** be used...” in the first sentence.

Modification: Language in Tentative Permit Finding II.T and Section IV.G of the Tentative Fact Sheet (Attachment F) are revised as proposed by the Districts with minor modification mentioned in the above response section.

²⁵ “... the permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution 68-16.” [see Permit Finding II.O on page 9-10 of the Tentative Permit]

²⁶ “This approach is consistent with the antidegradation policy in that it requires the Discharger to maintain its treatment level and effluent quality, recognizing normal variations in treatment efficiency and sampling and analytical techniques.” Fact Sheet Section IV.E on page F-27.



R. Comment Regarding the Statute of Limitations on Enforcement Actions

Comment: *References to potential enforcement actions should include references to the statute of limitations.*

The Tentative Permit at Page 1, under Table 3, states that Order No. 97-090 will be rescinded "except for enforcement purposes." This reservation of enforcement authority is not without temporal limitation. There are applicable statutes of limitation that would apply in this case to prevent enforcement beyond the statutorily-limited timeframe.

The Code of Civil Procedure (C.C.P.) at section 338(i) sets forth a three-year statute of limitations for commencing an action under the Porter Cologne Water Quality Control Act (Division 7, commencing with Section 13000) of the Water Code. Under this statutory provision, a cause of action shall not be deemed to have accrued until the discovery by the regional board of the facts constituting grounds for commencing actions under their jurisdiction. Since the state law authorizing administrative enforcement is contained in Division 7 of the Water Code, in Section 13385, the three-year statute of limitations would apply to any proposed enforcement action.

Similarly, under the federal Clean Water Act, for USEPA and citizen enforcement, there is a five-year statute of limitations, so no enforcement could occur for any violations that occurred more than five years before the effective date of the new permit.²⁷ Therefore, the Tentative Order should be amended to state that the previous permit is rescinded "except for enforcement allowed under the applicable statutes of limitation."

Requested Tentative Permit Revision:

At page 1, under Table 3, revise language to state that the previous permit is rescinded "except for enforcement allowed under the applicable statutes of limitation."

Response: This is standard language in all NPDES permits. Statutes of limitation have no application to potential administrative proceedings (such as administrative civil liability), only to Court Proceedings.

Modification: There is no change warranted in response to this comment.

S. Comments Regarding the Findings and the Compliance Summary

Comment 1: *The Districts have an excellent record of preventing wastewater overflows when compared with other California municipalities on a per-mile-of-pipe basis.*

The Compliance Summary in the Fact Sheet, at page F-10, states, "Since 1997, the Districts have reported numerous spills or overflows in the JWPCP service areas." While the Districts have experienced wastewater overflows in the JWPCP service area, there have been relatively few events given the number of miles of sewer tributary to the JWPCP. The primary goal of the Districts' sewer maintenance program has been and will remain the protection of human health and the environment. Wastewater overflows are generally prohibited by both state and federal regulations, and moreover, are inconsistent with the Districts' goal of providing the highest level of service to the public. The Districts have always placed high priority on capacity assurance, repair and replacement, and proper operation and maintenance of its sewerage system. In fact, in the last three fiscal years (2002-2003,

²⁷ 28 U.S.C. Section 2462, which states, "Except as otherwise provided by Act of Congress, an action, suit or proceeding for the enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise, shall not be entertained unless commenced within five years from the date when the claim first accrued..."



2003-2004, and 2004-2005), only 43 reportable spills have occurred despite the fact that there over 1,320 miles of trunk sewer maintained by the Districts (1,200 of which are in the JOS). Of the 43 reportable spills over the last three years, 25 were caused by high intensity rainfall, which is beyond the Districts' control. Thus, in the last 3 years, the Districts have experienced only 18 reportable spills caused by a factor other than high intensity rainfall. Taking into account 1,320 miles of trunk sewer, which is equivalent to about $\frac{1}{2}$ a spill for every 100 miles of maintained sewer. The City of Oakland, California reported an average of 28 spills per 100 miles of sewer recently.²⁸ The average spill rate for southern California municipalities is 5 spills per 100 miles, whereas the City of Los Angeles maintains an approximate rate of 10 spills per every 100 miles.²⁹

Requested Tentative Permit Revision:

Revise the language in the Compliance Summary on page F-10 to read: "In accordance with applicable permits, the Districts have reported a number of spills and/or overflows in the JOS service area over the years. In the last three fiscal years, 43 spills were reported in all sewers maintained by the Districts, many of which were caused by high intensity rainfall in the area. Excluding spills caused by rainfalls (which are outside of the Districts control), the Districts averaged only $\frac{1}{2}$ reportable spill per every 100 miles of sewer maintained over this three-year period, as compared to an average spill rate for Southern California municipalities of approximately 10 spills per every 100 miles."

Response: The Regional Board is aware of the Districts' effort in preventing wastewater overflows. We partially agree with the Districts' request but believe that only facts should be addressed in the Tentative Permit. Therefore, the compliance summary language regarding spills or overflows has been revised.

Modification: Section II.D of the Tentative Fact Sheet (Attachment F) has been revised as follows:

D. Compliance Summary

Since 1997, the Districts have reported numerous spills or overflows in the JWPCP service areas. In accordance with applicable permits, the Districts have reported a number of spills and/or overflows in the JOS service area over the years. In the last three fiscal years (2002-2003, 2003-2004, and 2004-2005), 43 spills were reported in all sewers maintained by the Districts, 25 of which were caused by high intensity rainfall in the area. The appropriate enforcement actions are being evaluated by the Regional Water Board.

Comment 2: *The Clean Water Act does not prohibit backsliding but rather restricts it to certain circumstances.*

A finding in the Tentative Permit (Finding P of page 10) which reads: "[s]ections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 122.44(l) prohibit backsliding in NPDES permits..." is not correct. In actuality, the CWA does not prohibit backsliding, it restricts backsliding in NPDES permits to certain instances where exceptions are not present.

²⁸ From USEPA webpage:
<http://yosemite.epa.gov/opa/admpress.nsf/b0789fb70f8ff03285257029006e3880/facb86fde9a9dc08852570d8005e1634!OpenDocument>

²⁹ From USEPA webpage:
<http://yosemite.epa.gov/opa/admpress.nsf/b0789fb70f8ff03285257029006e3880/a2971dcb017eee53852570d8005e1532!OpenDocument>



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Requested Tentative Permit Revision:

Replace the word "prohibit" with "restrict" in the first sentence of Finding P on page 10 of the Tentative Permit.

Response: Regional Board staff disagree with the Districts because "General Prohibition" has been clearly used in the section 402(o)(2) of the CWA.

Modification: There is no change warranted in response to this comment.

Please note that our response to comments from Heal the Bay is enclosed as an Attachment. We are sending all Response to Comments only to the commenters. However, the Response to Comments will be posted on our website at www.waterboards.ca.gov/losangeles. We believe this letter has addressed your comments and suggestions. Your revised Tentative Permit, Monitoring and Reporting Program, Fact Sheet, and Attachments related to the Tentative Permit will be submitted under a separate cover letter. Should you have any questions, please call the undersigned at (213) 576-6720.

Sincerely,

Original signed by

Blythe Ponak-Bacharowski
Chief, Municipal Permitting Unit (NPDES)

Attachment

cc: Heal the Bay

